

CORNELL UNIVERSITY  
MEDICAL COLLEGE

IN NEW YORK CITY

ANNOUNCEMENT  
1905-1906

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NEW YORK CITY  
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## CALENDAR.

1905.

Sept. 25, Monday—Examinations for conditioned students and for those applying for advanced standing begin.

Sept. 27, Wednesday—College opens.

Nov. 7, Tuesday—Election day. Legal holiday.

Nov. 23, Thursday—Thanksgiving recess begins.

Nov. 27, Monday—Thanksgiving recess ends.

Dec. 22, Friday—Christmas recess begins.

1906.

Jan. 2, Tuesday, 9 A.M.—Christmas recess ends.

Jan. 2, Tuesday }  
Jan. 3, Wednesday } Mid-winter Examinations.

Feb. 22, Thursday—Legal holiday.

April 13, Friday—Easter recess begins.

April 16, Monday, 9 A.M.—Easter recess ends.

May 14, Monday—Examinations begin.

June 13, Wednesday—Commencement.

All students must be registered at the secretary's office at the opening of the session. No student will be admitted after October 7th without special permission of the faculty. Immediately after registration the fees must be paid at the treasurer's office.

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At the foundation of the Medical College the following resolution establishing a Medical College Council and determining its functions was adopted by the Board of Trustees of Cornell University:

*Resolved*, that for the purpose of making recommendations to the Board of Trustees or the Executive Committee in relation to the business management of the Medical College there be established, and there is hereby established a Medical College Council which shall consist of seven members, to wit: the President of the University (who shall be *ex-officio* chairman), the Director of the Medical College, and three trustees to be elected by the Board of Trustees or the Executive Committee who shall be appointed, one for one year, one for two years, and one for three years, and their successors be appointed for three years, and two members of the Faculty, to be elected by the Faculty, who shall be appointed, one for one year, and one for two years, and their successors to be appointed for two years, and that all appointments to fill vacancies be made for unexpired terms.

The Council at present consists of the following members:

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GEORGE G. WARD, M.D., RUSSELL BELLAMY, M.D.

##### *Assistant Gynæcologists.*

CHARLES E. CARTER, M.D., EDWARD W. PETERSON, M.D.,  
ARTHUR R. GREEN, M.D., A. A. ROSENBLOOM, M.D.

#### Department of Genito-Urinary Diseases.

##### *Chief of Staff.*

FRANCIS C. EDGERTON, M.D.

##### *Assistant Surgeons.*

JOHN E. McWHORTER, M.D., A. J. GILMOUR, M.D.,  
THOMAS T. CARNEY, M.D.

CORNELL UNIVERSITY MEDICAL COLLEGE.

Department of Neurology.

*Chief of Staff.*

J. RAMSAY HUNT, M.D.

*Assistant Physicians.*

ROBERT M. DALEY, M.D.,      LESLIE J. MEACHAM, M.D.,  
ALEXANDER S. LEVERTY, M.D.,      FRANK W. ROBERTSON, M.D.

Department of Pediatrics.

*Chief of Staff.*

WALTER A. DUNCKEL, M.D.

*Physician.*

WILLIAM SHANNON, M.D.

*Assistant Physicians.*

HORACE S. STOKES, M.D.,      A. S. KELLY, M.D.,  
ALBERT EWING CHILDS, M.D.,      THOMAS C. CHALMERS, M.D.,  
EDWARD HAND, M.D.,      GEORGE DOW SCOTT, M.D.

Department of Dermatology.

*Chief of Staff.*

JAMES C. JOHNSTON, M.D.

*Surgeon.*

EDWARD PISKO, M.D.

*Assistant Surgeons.*

GEORGE W. CRARY, M.D.,      HANS J. SCHWARTZ, M.D.

Department of Otolaryngology.

*Chief of Staff.*

GEORGE B. MCAULIFFE, M.D.

*Surgeon.*

WILLIAM S. BRYANT, M.D.

*Assistant Surgeons.*

EARLE CONNER, M.D.,      H. E. COOK, M.D.,  
NATHAN S. ROBERTS, M.D.,      GEORGE W. KUNZ, M.D.

## FACULTY OF MEDICINE.

### Department of Laryngology.

#### *Chief of Staff.*

JAMES E. NEWCOMB, M.D.

#### *Assistant Surgeons.*

FRANK T. BURKE, M.D.,

WALTER C. MONTGOMERY, M.D.,

CHARLES MACK, M.D.,

PERRY SCHOONMAKER, M.D.

### Department of Orthopædics.

#### *Surgeons.*

P. HENRY FITZHUGH, M.D.,

HENRY SCOTT, M.D.

#### *Assistant Surgeons.*

DEAS MURPHY, M.D.,

JOHN J. NUTT, M.D.

PERCY WILLARD ROBERTS, M.D.

### Department of Ophthalmology.

#### *Chief of Staff.*

ROBERT G. REESE, M.D.

#### *Surgeon.*

J. HERBERT CLAIRBORNE, M.D.

#### *Assistant Surgeons.*

G. W. VANDERGRIFF, M.D.,

EDWARD B. COBURN, M.D.,

JOSEPH L. DIAS, M.D.,

A. L. OBERDORFER, M.D.

### Department of Drugs and Supplies.

#### *Apothecary.*

CHARLES T. LAIRD, Ph.G., Phm.B.

#### *Assistant Apothecary.*

GUSTAVE T. RUCKERT, Ph.G.

J. THORN WILLSON,

*Managing Clerk of the College.*

First Avenue, 27th and 28th Streets.



## GENERAL STATEMENT.

The Medical Department of Cornell University was established in 1898. This undertaking, which had been contemplated by the Trustees for several years, was made possible by the gift to the University of a commodious and fully equipped building designed for medical instruction, and by the bestowal of a sufficient "Endowment Fund" for the generous maintenance of a large and vigorous school for higher education in medicine.

The Main College Building comprises a Medical School and Dispensary, with principal entrance on First Avenue, opposite Bellevue Hospital, and occupies the entire block between Twenty-seventh and Twenty-eighth Streets on First Avenue, extending back 100 feet, thus affording an available space of nearly 20,000 feet on each floor. The building is designed in a severe style of Renaissance architecture, and is constructed of Indiana limestone and red brick. See page 135.

The Loomis Laboratory (founded 1886) serves the purpose of undergraduate instruction, in connection with the laboratories in the College building. It has also been reorganized as a research laboratory and special departments have been established in bacteriology, physiological chemistry, experimental medicine, and pharmacology. Facilities are thus furnished to graduates in medicine who may desire to pursue further study or original research in the various departments of laboratory investigation.

The Metropolitan Street Railroad cars on Twenty-eighth and Twenty-ninth Streets and First Avenue connect with all the other lines of the company, by a system of transfers at Fourteenth, Twenty-third, Thirty-fourth, and Fifty-ninth Streets, and so put all the hospitals in the city within easy access of the College. A convenient station of the Manhattan Elevated Railroad is also at Twenty-eighth Street and Third Avenue. A station of the Subway is at Twenty-eighth Street and Fourth Avenue.



## CLINICAL FACILITIES.

**The College Dispensary.**—One-half of the college building is allotted to the Dispensary, in which ample provision has been made for the accommodation of the various clinical departments, of which there are eleven, viz.: General Surgery, General Medicine, including the diseases of the Heart and Lungs, Gynæcology and Obstetrics, Diseases of Children, of the Nervous System, of the Genito-Urinary System, of the Skin, Eye, Ear, Nose and Throat, and Orthopædic Surgery.

Each Department has been furnished with all the instruments and apparatus necessary for the examination and treatment of patients. A number of small amphitheatres are placed in the Dispensary, so that the clinical instruction provided by the curriculum can be carried on without interfering with the treatment of patients.

The attendance in the Dispensary averages 500 patients daily, and is steadily increasing, so that the clinical material is abundant and accessible.

Members of the Faculty of Cornell Medical College hold appointments in the hospitals and dispensaries of the city, and are thus enabled to utilize for teaching purposes a great quantity and variety of clinical material. The most important and best of these hospitals are the Bellevue, New York, Presbyterian, German, St. Vincent, Gouverneur, Hudson Street, Willard Parker and Reception Hospitals, and the New York Eye and Ear Infirmary. Others are utilized from time to time, as necessity or opportunity arises. The major part of the bedside and clinical instruction is, however, conducted in Bellevue Hospital, which is directly opposite the College.

This hospital has 900 beds, and receives 24,000 patients annually. It contains an amphitheatre capable of seating 300 students, and also a number of small, newly built operating theatres, where section demonstrations in surgery and gynæcology are made before the class. Connected with the hospital is a hydropathic establishment, where students are shown the practical applications of baths, douches, massage, etc.

## CORNELL UNIVERSITY MEDICAL COLLEGE.

The following clinics are held during the session:

Obstetrics and Gynæcology—Monday, 3 P.M.

Professor POLK.

Medicine—Tuesday and Friday, 3 P.M.

Professors LOOMIS and THOMPSON.

Surgery—Wednesday and Thursday, 3 P.M.

Professors STIMSON, WOOLSEY, DENNIS, and GWYER.

Genito-Urinary—Wednesday, 3 P.M., for half the term.

Professor ALEXANDER.

Nervous Diseases—Friday, 4 P.M.

Professor DANA.

## REQUIREMENTS FOR ADMISSION.

The laws of New York State require of the prospective student of medicine a preliminary education equivalent to that obtainable in a four years' course in any academy or high school recognized by the Regents as maintaining a satisfactory standard, before the applicant can be admitted to any class in any medical college in the State. A list of the subjects ordinarily taught in these schools is given in handbook No. 3 published by the Regents, and mailed on application to the "Regents' Office, Albany, New York." In this it will be found that each subject, according to its character and the time usually devoted to it, is assigned one or more "counts," 48 of which are needed to obtain the medical-student certificate. This official approval of the preliminary education may be granted by the Regents on presentation to them of properly attested evidence that the requisite work was accomplished in a registered institution. In lieu of this the applicant is required to pass the examinations conducted by the State authorities at regular intervals throughout the year.

As the ordinary 48 count "Medical Student Certificate" required by law can be obtained with little or no knowledge of the English language, and of subjects which are absolutely essential to a proper understanding of any natural science, the Faculty decided that (beginning with the class entering in October, 1902) all applicants for admission must earn their medical-student certificate in part upon the following subjects, as described in the Regents' "Handbook No. 3, High School Department, Examinations":

## CORNELL UNIVERSITY MEDICAL COLLEGE.

Algebra, 4 counts; Plain Geometry, 4 counts; Elementary United States History and Civics, or its equivalent, 2 counts; Second-Year English, or its equivalent, 8 counts; Second-Year Latin, or the first four books of Cæsar's "Commentaries," or First-Year Latin and First-Year German, French, or Spanish, 8 counts. Total, 26 counts.

The subject-matter covered in these requirements, which must be included in the Regents' certificate, is briefly summarized as follows:

Algebra includes the elements of the subject through quadratic equations.

Plane Geometry includes the geometry of the plane, the ordinary definitions, and demonstrations of simple original theorems.

Elementary United States History and Civics, or its equivalent, includes important historical dates, the character and purpose of the different wars, the purport of the Constitution, and the relation of the Federal and State governments.

Second-Year English comprises (1) composition, including the theory of construction in prose; (2) terms of style, figures of speech, and prosody; (3) literature, *i.e.*, a knowledge of "Twice-Told Tales," "Sir Roger de Coverley" papers, "Sesame and Lilies," "Ancient Mariner," "Cotter's Saturday Night," "Vision of Sir Launfal," "Silas Marner," "Julius Cæsar," "First Bunker Hill Oration."

Second-Year Latin includes a knowledge of grammar and the ability to translate at sight simple passages from any standard author, or from the first four books of Cæsar's "Commentaries." The alternative to Second-Year Latin, namely, First-Year Latin with First-Year German, French, or Spanish, comprises under the heading, First-Year Latin, a knowledge of grammar, the rendering of simple prose from Latin into English, and *vice versa*. Under the heading of First-Year German, French, or Spanish, a similar knowledge is required.

The total number of counts allowed by the Regents for these required subjects aggregate 26. The Faculty recommends that the remaining 22 counts necessary to complete the certificate be made up from the following subject-groups enumerated in the Handbook: Science; Mathematics; Language and Literature; History and Social Science.

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Students who can earn a portion of these 22 counts upon Physics and Inorganic Chemistry, as is earnestly recommended, may be given credit for them, and the time thus gained will be devoted to intensive work in the medical branches.

A certificate of the College Entrance Examination Board covering any of the above subjects, provided at least Grade C is obtained may be exchanged for corresponding Regent's Examinations.

*As heretofore, those applicants who have successfully completed the first year in any college or university recognized by the Regents as maintaining a proper standard will be admitted to the first year of the medical course on presentation of the usual Regents' certificate, together with evidence of their year or years of college training.* Attention is again called to the fact that the Medical College holds no entrance examinations, and therefore the applicant for admission must, except in the case of those who had had one or more years in college or university, present the special Cornell Medical-Student Certificate granted by the Regents to those who have fulfilled the requirements, or must have the Regents' endorsement on the certificate that the requirements have been complied with.

### PROPOSED COURSE FOR THE DEGREE IN ARTS (A.B.) AND IN MEDICINE (M.D.).

As a liberal education in the arts and sciences is of great advantage to prospective students of medicine, all who can, are urged to take the Freshman, Sophomore, and Junior years in the Academic Department at Ithaca. After the completion of these years in the Academic Department (in which all the work is elective) the student is permitted to elect, as the fourth year of his A.B. course and first year of his M.D. course, a year's work in the Medical Department at Ithaca. He may then take his fifth year of work—the second of the medical course—either in Ithaca or in New York; but he must take the last two years of the medical course in New York. In this way he will obtain the A.B. degree at the end of four years, and the M.D. degree at the end of seven years of study. This is possible because the first two years of the medical course in New York are offered in duplicate at the University in Ithaca.

Women must take the first two years in medicine in Ithaca,

## CORNELL UNIVERSITY MEDICAL COLLEGE.

where special accommodations are provided for them in the Sage College. They are received at the Medical College in New York City in the third and fourth years only.

Students who have taken the A.B. degree, as above, will, if they have anticipated in the Academic Department the scientific studies prescribed in the medical course, be admitted to advanced standing in the Medical College in New York. Those who have completed all the subjects prescribed for the first two years of the course in medicine will be admitted to the third-year class. After passing the requisite examinations at the end of this and then of the fourth year, they will be advanced to practically a fifth year, consisting almost entirely of practical training. At its close, provided the work has been satisfactory, the M.D. degree will be conferred. As this fifth year gives opportunity for more than the requisite work, students who have taken the A.B. degree in the Academic Department may, even if deficient in one or more of the prescribed subjects of the medical course, still be admitted to the third-year class in New York, but only upon the recommendation of the Medical Faculty at Ithaca.

The schedule of this fifth year will be somewhat as follows:

There will be weekly recitations in the subjects of Medicine, Surgery, Anatomy, Materia Medica and Therapeutics, and Obstetrics and Gynæcology. A competent corps of instructors is suggested by the Faculty, but the students are at liberty to make their own selection and financial arrangements in quizzing, the chief object of which is preparation for the competitive examinations for the appointment of internes held each spring by the various hospitals. The fee for such "quizzes" averages about \$100, and the time will be from 5 to 6 P.M., or at any other convenient hour daily. The rest of the day is to be devoted to practical training in the College dispensary and laboratories. In the dispensary the departments of General Medicine and General Surgery hold morning and afternoon sessions. The afternoon hours are devoted to the nine specialty departments of Neurology, Gynæcology, Pediatrics, Laryngology, Orthopædic Surgery, Dermatology, Ophthalmology, Otology, and Diseases of the Genito-Urinary System.

The Ithaca students who take this fifth year will act as regularly appointed clinical assistants in these various departments



## CORNELL UNIVERSITY MEDICAL COLLEGE.

for the twelve months following the conclusion of their fourth year of medicine. Groups of five will serve during the morning hours, on alternative days, in the Departments of General Medicine and Surgery. At the end of six months, those who have had the privilege of selecting in the order of standing at the end of the fourth year general medicine will change to general surgery, and *vice versa*. In the mornings of the days when not engaged in the dispensary, these groups of five students will report in one of the laboratories of clinical or histological pathology or bacteriology and, as they may elect, either pursue research work upon a subject to be selected after consultation with Professor Ewing, or act as assistant (unpaid) instructors in the class-room work in these laboratories. The results of research work, if satisfactory, will be included in the regular publications of the department of Pathology.

During the afternoons, groups of not more than three students will serve in rotation as clinical assistants in each of the nine specialty departments of the dispensary. The length of time spent in each department will vary somewhat with the number of students and the duration of vacation desired; but at present it is expected that about one month will be devoted to daily attendance in each specialty. It is the intention of the Faculty to allow the utmost liberty in the selection of courses consistent with the acquirement of a thorough general and practical education. For this reason, if desired, the student will be assisted in obtaining the position of clinical assistant in any dispensary or department of a dispensary which supplies opportunities equivalent to those offered by the College. The internes in the various city hospitals are often forced to absent themselves from duty on account of sickness or other reasons. The members of the Faculty who visit such hospitals can thus frequently supply substitutes from competent students for these positions for longer or shorter periods. Such places, of course, cannot be promised in advance, but may confidently be expected by a greater or less number.

The required work of this fifth year is then briefly summarized as follows:

A quiz of at least one hour a week in each of the subjects of Medicine, Surgery, Anatomy, Materia Medica and Therapeutics,

## CORNELL UNIVERSITY MEDICAL COLLEGE.

and Obstetrics and Gynæcology from October to April inclusive. At least two hours' daily service for four months each (preferably in the morning) in general medicine and general surgery in the College dispensary; at least two hours' daily service for one month (preferably in the afternoon) in each of the nine specialty departments of the College. If any of the work is elected in another dispensary or hospital, it must be one under the supervision of some member of the Faculty.

The fees for this year will be \$100, payable in advance to the College; and a graduation fee of \$25, payable at the end of the fifth year; and the fee payable to the quiz masters, of not more than \$100.

### CALENDAR OF REGENTS' EXAMINATIONS.

YEAR.	JAN.	MARCH.	JUNE.	SEPT.
1905 . . .	23-27	29-31	12-16	26-28
1906 . . .	..-..	..-..	..-..	..-..

**NOTE.**—September examinations will be held in New York, Albany, Syracuse, and Buffalo, for law and medical students only. The other examinations are held in New York at the Grand Central Palace, Lexington Ave. and 43d St., and in numerous academies and high schools throughout the State for professional and academic students.

### Extracts from Regents' Rules.

**Order of Studies.**—There is no restriction in the order in which studies may be taken. Advanced students who may come from other States, or who, for other reasons, have not passed in elementary subjects, may take them at any time: *e. g.*, arithmetic after algebra or geometry; English composition after rhetoric, etc.

**Time Limit.**—There is no limit of time, but all credentials issued by the university are good until cancelled for cause. Studies necessary to obtain any credential may be passed at different examinations.

Seventy-five per cent. of correct answers is required in all subjects.

Answer papers will be reviewed in the Regents' office, and all papers below standard will be returned to the candidates. For those accepted, pass-cards will be issued.

**Pass-Cards.**—A Regents' pass-card is not limited in time; therefore it is not necessary to pass any Regents' examination a second time.

**Medical-Student Certificate.**—When all requirements are fulfilled, the Regents grant a medical-student certificate on payment of a fee of 25 cents.

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On receiving this certificate, the candidate must send it to the secretary or recording officer of the university or college at which he intends to study medicine.

N. B.—*Candidates for medical students' examination should send notice at least ten days in advance, stating at what time and in what studies they wish to be examined*, that required desk-room may be provided at the most convenient place.

Candidates who fail to send this advance notice will be admitted only so far as there are unoccupied seats.

### Medical-Student Certificates Without Examinations.

Students who may be entitled to the medical-student certificates on equivalents are advised to present or forward their credentials to the Secretary of the College, who will send them to the Regents for examination and approval. They will be returned as soon as verified, and, if accepted, the proper certificate will be sent with them.

Other equivalent credentials from foreign countries or from other States may be accepted by the Regents at their discretion.

The secretary will furnish full information on request.

### Directions for Obtaining a Regents' Medical-Student Certificate.

1. Give the full name of the applicant, the exact name of the institution and of the department attended, an accurate description of the course pursued, using the same terms that are given in the official announcement, circular, or catalogue of the institution.

Send an official announcement, circular, or catalogue of the institution, showing:

(a) Requirements for admission; *i.e.*, subjects and years given to their completion.

(b) Requirements for graduation in each course, including subjects pursued and time devoted to each.

### Amendment to Medical Law, 1902.

At their meeting, July 1, 1901, the Regents took the following action: *Voted*, That beginning with the September, 1901, medical licensing examinations, a recent photograph of each candidate be required as a part of the application for admission.

In accordance with the medical law, as amended in 1902, the Regents admit conditionally to the tests in anatomy, physiology and hygiene, and chemistry, applicants 19 years of age certified as having studied medicine not less than two full years of at least nine months each, in two different calendar years, in a medical school registered as maintaining at the time a satisfactory standard; provided that such applicants are of good moral character, have the requisite preliminary education, and pay the fee of \$25; the final examinations in surgery, obstetrics, pathology and diagnosis, and therapeutics, including practice and materia medica to be passed



## *CORNELL UNIVERSITY MEDICAL COLLEGE.*

after having finished the full period of study and having received the medical degree.

Candidates who have studied medicine not less than the minimum period of two years, whether undergraduates or graduates in medicine, are admitted conditionally as aforesaid to the examinations in anatomy, physiology and hygiene, and chemistry; if such applicants fail to attain 75 per cent. in one or more of these three topics they must be reexamined in all topics and must wait at least six months before reexamination; and candidates failing to obtain at least 75 per cent. in one or more of the topics at the final examinations in surgery, obstetrics, pathology and diagnosis, and therapeutics, including practice and materia medica, after having passed in the three preliminary topics must be reexamined in all four of the final topics and must wait at least six months before reexamination.

The Regents may, in their discretion, accept as the equivalent of the first year in a registered medical school evidence of graduation from a registered college course, provided that such college course shall have included not less than the minimum requirements prescribed by the Regents for such admission to advanced standing.

### **Registration and Matriculation.**

Students on entering the College must register at the secretary's office, and pay the registration fee of \$5. The payment of this fee is required only once. They will receive a receipt which will be exchanged for a certificate of full matriculation when they shall have complied with the requirements stated on page 22. No conditional matriculation will be accepted. The full 48 count Regents certificate, including the 26 counts in the subjects specified, must be presented.

### **Advantages Gained by Preliminary Education.**

Graduates of Cornell, Yale, Harvard, Princeton, University of Pennsylvania, Johns Hopkins, Columbia, University of Michigan, and other accredited universities, who have taken either a preparatory medical course or special work in organic or inorganic chemistry, physics, or physiology, will be allowed credit for the work which they have done, and may be excused from the recitations upon these subjects, and from the exercises of the chemical laboratory in the first year, provided they pass examinations before the professors of these departments, and provided they give to dissection and electives as described on pages 35-36, in the various departments, a full equivalent in hours to the subject they may have passed by examination.

## *CORNELL UNIVERSITY MEDICAL COLLEGE.*

Students who have had training in microscopical technique or in histology will be given advanced work in the histological laboratory.

### **Admission to Advanced Standing.**

Students who have already attended the requisite number of courses in other accredited medical colleges, may be admitted to advanced standing in any one of the years of the four years' course of the Cornell University Medical College, by presenting the requisite Cornell Regents' medical-student certificate and by passing examinations in the subjects described on pages 82-84 as completed, in the year or years previous to that which the student desires to enter. The applicant must also present certificates of having satisfactorily completed laboratory courses equivalent to those required of the Cornell medical students in the year or years previous to that to be entered.

According to law, no student from a Medical School which has not been registered by the Regents may obtain a degree on less than two years of medical study in this State.

### **Holders of Special Degrees.**

Graduates of pharmacy or of dental or veterinary or other professional schools, who can present satisfactory evidence of having completed any course of study required in any year by this College, may upon passing a satisfactory examination be excused from attendance upon instruction in that subject, provided they take equivalent additional work in other branches.

### **Admission to Special Courses.**

Graduates in medicine, or students who desire to pursue a special course without graduation, are admitted to registration as special students, after approval by the head of the department conducting the course, without Regents' or other preliminary examination. Such special courses do not count in any way as part of the four years' course required of candidates for the degree of doctor in medicine. Further information regarding such courses, fees, etc., may be obtained by addressing the Secretary of the Cornell University Medical College, First Avenue, 27th to 28th Streets, New York.

## CORNELL UNIVERSITY MEDICAL COLLEGE.

### NEW YORK STATE SCHOLARSHIPS.

Under the law of the State, the Commissioner of Education is empowered to award annually a number of free scholarships in Cornell University equal to the number of Assembly Districts in the State. These scholarships entitle the holder to free tuition for four years in any department of Cornell University. They are awarded on examination to candidates from the general Assembly Districts "in consideration of their superior ability and as a reward for superior scholarship in the academies and public schools of this State."

For particulars in regard to these scholarships, application should be made to the Commissioner of Education at Albany, N. Y.

Holders of State scholarships are notified that failure to register before the close of registration day involves the severance of their connection with the University and consequently the forfeiture of their scholarships. The President of the University is required by law to send immediate notice of such vacancies to the Commissioner of Education and the Commissioner fills vacancies forthwith.

### UNIVERSITY UNDERGRADUATE SCHOLARSHIPS.

Pursuant to the action of the Trustees, there will annually be thrown open to competition for all members of the freshman or first-year class who are registered in courses leading to first degrees, at a special examination held at Ithaca, at the beginning of the freshman year, eighteen scholarships of the annual value of \$200.

Students of high ability from the State of New York will have the additional advantage of being able to secure State scholarships, as there is nothing in the University statutes to prevent a student from holding both a State scholarship and a University scholarship.

These scholarships will be given for passing examinations which shall average the highest in any three of the following groups, of which group (a) must be one. Previous to entering this competitive examination, however, candidates are required to

# CORNELL UNIVERSITY MEDICAL COLLEGE.

pass satisfactorily the regular entrance examination in English, or the entrance examination in English given by the College Entrance Examination Board. *School certificates, Regents' diplomas, and normal school diplomas* are not accepted in place of this English examination.

(a) Plane geometry and algebra through quadratic equations.

(b) Solid geometry, advanced algebra, plane and spherical trigonometry. (c) Greek. (d) Latin. (e) French. (f) German.

For further information in regard to the scholarships see the Register of Cornell University.

## CHARGES FOR INSTRUCTION.

### *First Year.*

Registration . . . . .	\$5 00
Tuition . . . . .	150 00
Laboratory fees . . . . .	35 00
	————— \$190 00

### *Second Year.*

Tuition . . . . .	\$150 00
Laboratory fees . . . . .	30 00
	————— \$180 00

### *Third Year.*

Tuition . . . . .	\$150 00
Laboratory fees . . . . .	30 00
	————— \$180 00

### *Fourth Year.*

Tuition . . . . .	\$150 00
Laboratory fees . . . . .	25 00
Graduation fees . . . . .	25 00
	————— \$200 00

Each student is required to pay to the clerk of the College the following amounts to cover breakage in the Laboratories and Dispensary departments:

1st year, Laboratory and Dispensary . . . . .	\$10 00
2nd year, Laboratory and Dispensary . . . . .	15 00
3rd year, Laboratory and Dispensary . . . . .	10 00
4th year, Dispensary . . . . .	5 00

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\* The registration fee is payable only once, on entrance.

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These deposits less the amount charged for breakage, will be returned at the end of each year.

Tickets must be taken out and paid for at the beginning of the session.

### SPECIAL STUDENTS.

Special students, on the recommendation of the head of the department concerned, may be admitted to any of the courses of instruction offered in the College, or to any course of instruction especially provided, on the payment of a registration fee of five dollars and a tuition fee of twenty-five dollars, except in dissection, where the tuition fee is fifteen dollars.

The graduation fee is payable on registering for graduation. The tuition fees for the first two years at Ithaca are identical with those of the same period in New York. All fees are payable at the beginning of the term, but in special cases they may be paid semi-annually in advance. No rebate will be made in any case.

No remission of laboratory fees will be made because of previous instruction elsewhere in the subjects.

### EXPENSES OF STUDENTS.

The following estimate of the annual expenses of a candidate for a degree in the Medical School is based on the statements of students.

	<i>Low</i>	<i>Average</i>	<i>Liberal</i>
Matriculation (once only) . . . \$	5 00	\$ 5 00	\$ 5 00
Tuition (as at present fixed) . . .	190 00	190 00	190 00
Books . . . . .	16 00	28 00	35 00
Chemical apparatus . . . . .	4 00	5 00	6 00 up
Room . . . . .	92 00	130 00	190 00 "
Board . . . . .	124 00	129 00	147 00 "
Clothes and laundry . . . . .	59 00	80 00	112 00 "
College incidentals . . . . .	16 00	21 00	24 00 "
Other expenses . . . . .	46 00	74 00	98 00 "
Graduation fee (last year) . . .	25 00	25 00	25 00 "
Total . . . . .	\$577 00	\$687 00	\$832 00



## GENERAL STATEMENT OF THE PLAN OF INSTRUCTION.

THE chief features in the scheme of instruction are thorough laboratory training in all the subsidiary branches, daily recitations from standard text-books, clinical teaching in dispensaries and at the bedside in hospitals, and enough didactic lectures to make clear the general principles and conflicting theories in the practice of medicine and surgery. All students in any one class advance simultaneously in the various subjects, and no section or group works apart from any other, thereby losing the opportunity to appreciate the relationship of the different subjects which at any given time may be under discussion. Allowance, however, has been made for those who through natural endowments or superior energy or previous education can outstrip their less fortunate fellows. A careful record is kept of the attendance and character of the work of every student, and by this means at the end of the year each is placed in the section to which this record entitles him. A system of electives in clinical, laboratory, and recitation work is also provided, which it is the aim of the Faculty to enlarge as opportunities arise. A student is required to master all the subjects taught in any given year before being allowed to advance to the next, as the knowledge acquired in each year is necessary for a proper understanding of that which follows. Examinations are held at the end of each session; a failure to pass not more than two subjects, one of which at least must be a laboratory subject, is allowed in the spring, but every subject must be satisfactorily passed at the beginning of the next ensuing college year, or the applicant will be compelled to repeat the work of the preceding year.

*The essential feature of the entire system is the division of the classes of the several years into small sections for recitations, demonstrations, laboratory exercises, and for clinical instruction in the college dispensary, and in the wards of the numerous hospitals attended by the members of the faculty.*

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The following is a statement of the curriculum in each of the four annual sessions necessary to obtain the degree of M.D., and attention is called to the careful arrangement of the instruction in time and correlation in subject-matter so as to provide for a proper understanding and assimilation of the knowledge imparted in the different departments.

If a student, without neglecting his required schedule work, desires to take advanced work and can make an opportunity to do this, without interfering with the work of other students, he shall be permitted to do so and shall receive credit for it.

**The first year** is devoted to anatomy—several consecutive uninterrupted hours being provided for dissection—normal histology, chemistry, physics, and embryology. The gross anatomy of the thoracic, abdominal, and pelvic viscera is demonstrated in outline in the early weeks of the session in anticipation of the examination of these organs in the histological laboratory and a consideration of their physiology in the second half of the session.

The general principles of mechanics, hydrostatics, optics, electricity, heat, and acoustics, and their application to medicine, are taught in lectures illustrated by experiments. Inorganic chemistry is studied in the laboratory throughout the year. The class is divided into small sections, each of which must attend daily one or more recitation exercises in anatomy, histology, physiology, and chemistry. These follow as closely as possible the practical work.

Students who have had the advantage of a thorough preliminary education in physics and chemistry before entering the medical school, after satisfactorily demonstrating to the professor in charge of this department, by examination or otherwise, that they are familiar with the work of the first year, may be excused from attendance upon these subjects. In their place they must elect at least one of the following courses given in the second year—namely, laboratory pharmacology, or physiological chemistry, or bacteriology.

**During the second year** anatomy, physiology, and chemistry are completed, and the study in text-books of medicine, surgery, obstetrics, and pathology is begun. The gross anatomy of the organs of special sense, and then that of the nervous system, is taught at the outset of the year by demonstrations to small

## CORNELL UNIVERSITY MEDICAL COLLEGE.

groups of students. The demonstration of these organs is followed as closely as possible by the study of them in the histological laboratory during the first half of the session. The lectures and recitations in physiology follow the same course, and, in connection with the study of the gross and histological aspects of the parts under discussion, are more fully comprehended. Organic and physiological chemistry are studied in the laboratory and by lectures and recitations throughout the year. At the same time a laboratory course in pharmacology is pursued, familiarizing the student with the physical and chemical properties of drugs. Bacteriology is begun, the student commencing with the preparation and care of media and the recognition of the gross and microscopical characteristics of microorganisms.

During the first few weeks of the term lectures are delivered upon the general principles of pathology, with particular reference to the elucidation and classification of the various forms of inflammation. The substance of these lectures will form the basis of the subsequent instruction in this subject in all departments, and thus insure uniformity in the teaching and understanding of the causes of disease. These lectures are supplemented by autopsies before small sections to demonstrate gross lesions. Having obtained some knowledge of pathology, the student by means of recitations is made familiar with the principles of surgery, medicine, and obstetrics.

Students who have completed elsewhere courses in physiological chemistry or pharmacology equivalent to those of the second year, may by passing examinations at the beginning of the term be excused from further attendance upon them.

Students thus excused from part of the second-year work and those who have been allowed electives in their first year may take one or more of the following elective courses during their second year—namely: 1. Bacteriology in its practical relation to disease. 2. Materia medica recitations of the third year. 3. Manikin course in obstetrics. 4. Obstetrical clinic. The two latter elective courses are in preparation for the required work in practical obstetrics, which, usually taken in the third, can thus be taken during the second summer if desired.

Students are allowed to take the State Board licensing examinations in the primary subjects at the end of the second year.



## CORNELL UNIVERSITY MEDICAL COLLEGE.

Those intending to reside in this State are encouraged to avail themselves of this opportunity.

**In the third year** medicine, surgery, materia medica, therapeutics, and obstetrics are studied systematically from text-books and practically at the bedside, in the dispensary, and in general clinics. A sufficient number of didactic lectures are given by the Professors of Medicine and Surgery at the beginning of the session to explain general principles in symptomatology and diagnosis. Throughout the year the class must attend in small sections one or more daily recitations from standard text-books upon subjects previously assigned and learned. Pathology is studied in greater detail than previously, both in the laboratory and in the dead-house, and as far as possible morbid processes are demonstrated in advance of the study of the disease in the text-book or its clinical presentation.

In conjunction with the bedside teaching, instruction is given in all of the modern laboratory aids in diagnosis classified under the term of clinical pathology.

Students in groups of ten or twelve are taught the methods of examining patients for the detection of abnormal physical signs, and at the close of the session are expected to be familiar with the recognition and treatment of the common diseases and be conversant with the fundamental subjects of a medical education. The specialties taken up in this year are neurology, pediatrics, toxicology, and gynæcology. They are taught by clinical lectures as part of the general subjects of the practice of medicine, surgery, and obstetrics.

**The fourth year** is devoted chiefly to the study of diagnosis and treatment of disease at the bedside, in the dispensary, and in clinics. The extent of this may be inferred from the present arrangement of the schedule, which contemplates about fifty hours of hospital-ward work in medicine and nearly the same number in surgery for every student. There are as few lectures as are consistent with the proper exposition of the chief problems confronting the profession, and these are delivered at the outset of the term, in order that the student may become familiar as soon as possible with the facts which are to be taught practically. For example, to the Professor of Medicine ten didactic lectures are assigned. This proportion has to be ex-

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ceeded somewhat in therapeutics, obstetrics, and the specialties, but many of these lectures are illustrated by the presentation of typical cases and are really clinics. The clinical instruction in surgery is supplemented by an operative course in which the student performs upon the cadaver all the common operations. Particular attention is also given to the methods of making medical and surgical diagnoses, and in this connection constant use is made of the bacteriological and chemical laboratories, where the student examines specimens taken at the bedside during one exercise, and reports the results to the class at the next.

Hygiene and its application in the province of the physician and public health officer is taught by lectures supplemented by demonstrations of the plans and methods of the city health board.

The major part of the theoretical instruction, as in the previous years, is given by recitations in the subjects of medicine (including neurology), surgery (including orthopædic surgery and genito-urinary diseases), therapeutics, obstetrics, gynecology, and pathology.

The instruction in the specialties, which is made the distinguishing feature of this final year, is begun with a few clinical lectures and is continued by a course in the examination and treatment of dispensary patients by each student. Every one receives from fourteen to twenty-eight hours of this training (the number varies somewhat with the subject), and should become reasonably proficient in the use of instruments, the ability to make diagnoses and give relief. There is no attempt made to produce experts, but each one before graduation must know enough about the specialized branches of medicine to be a competent general practitioner. The lectures upon the physiology of the organs of special sense delivered in the fall to the second-year class, must also be attended by the seniors. These lectures serve as an introductory review of facts necessary for a proper knowledge of the specialties and obviate unnecessary repetitions by the different professors.

Every student must personally attend a definite number of cases of labor, and for this purpose the maternity service open to the college offers excellent opportunities. The faculty earnestly recommend that this work be accomplished in the summer prefer-

## *CORNELL UNIVERSITY MEDICAL COLLEGE.*

ably of the third year; by the proper choice of electives it is possible in the second summer, but this is not as desirable or profitable. If taken during the regular winter session much loss in other work may result. Those who for any proper reason cannot take this course as advised in the summer might, however, succeed in obtaining the necessary cases during the winter by selecting odd hours when not engaged in section work, and by arrangement with the office to receive telephone calls.

To meet the requirements of hospital and other boards of examination, such as those of the civil service or of the army and navy, students who wish to compete in these examinations may elect in the fourth year to have all their recitation exercises with special instructors appointed by the faculty. A separate fee is required for this service. There is also offered an advanced course in neurology in a hospital devoted largely to the care of this class of patients. There will in addition be elective practical courses in the dispensary as opportunity arises.

# DETAILS OF THE PLAN OF INSTRUCTION.

## ANATOMY.

GEORGE WOOLSEY, M.D., *Professor of Anatomy.*

IRVING S. HAYNES, M.D., *Professor of Practical Anatomy.*

DR. WILLIAM F. STONE, *Instructor.*

### *Demonstrators of Anatomy,*

DR. WILLIAM F. STONE,

DR. JOHN F. CONNORS,

DR. FRANK S. FIELDER,

DR. WILLIAM A. DOWNES

DR. BURTON J. LEE,

DR. JOHN J. NUTT,

DR. JOSEPH S. WHEELWRIGHT.

Anatomy is taught in the first and second years by lectures, recitations, laboratory courses, section demonstrations, and by dissection. The course in anatomy is arranged to correspond as far as possible with the courses in physiology and histology.

**Lectures** in the first year are confined to the practical applied anatomy of the bones and joints, and follow the recitations on these subjects. In the second year the lectures are devoted to regional surgical anatomy, the students being already well grounded in descriptive anatomy.

One lecture a week is given during the first half of the second year by the Professor of Practical Anatomy on the development and gross anatomy of the nervous system, and the topographical anatomy of one of the extremities.

**Descriptive Anatomy** is taught by recitations, section demonstrations and laboratory courses and by dissection.

**Recitations**, from standard text-books, are held by the Instructor in Anatomy twice a week for each section of the first-year class and once a week for each section of the second-year class. During the first year the recitations are upon the bones, joints,

## CORNELL UNIVERSITY MEDICAL COLLEGE.

muscles, arteries, veins, and a preliminary study of the central nervous system; during the second year upon the nervous system and the viscera.

### PRACTICAL ANATOMY.

**Section Demonstrations** are now conducted as laboratory courses in which a given region is not only demonstrated, but each member of the group is required to identify the structures on the part, specimen or model. They are conducted by the Professor and Demonstrators of Practical Anatomy twice a week for each section during the first half of the first year and the last half of the second year, and once a week during the rest of the first and second years. During the first three months of the first year the students are taught by section demonstrations of that part of the cadaver they are next to dissect; how to dissect, what to find, and where to find it. In addition, one preliminary demonstration is given weekly from October to January on the thoracic, abdominal, and pelvic viscera, to prepare students for the courses in physiology and histology by demonstrating the organs whose function and structure they are to study. In the last half of the first year the joints are studied. In the second year the brain and nervous system, the organs of sense, the thoracic and abdominal viscera, and the perineum are studied.

**Dissection.**—The course in dissection is arranged on a laboratory basis—that is, the students are required to dissect during certain specified hours each day while the demonstrators are in attendance. Twelve hours a week are assigned in the schedule for this anatomical laboratory course during the first and second year, and dissection is permitted at any time after 10 A.M. that the students are at leisure.

*Two courses of dissection* are required. The first course for first-year students comprises the dissection of three parts—the head and neck, and upper and lower extremities, including the joints. This course is begun after the recitations and section demonstrations have prepared each student for the part assigned to him.

The second course consists of the dissection of four parts and is designed for second-year students and those first-year students who have completed the first course. This course includes a review

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of the first course, with more particular attention paid to the minuter parts and, in addition, the dissection of the brain, the trunk, with the thoracic and abdominal viscera, and the perineum. A considerable part of the second course may be finished during the first year. This will afford time in the second year for additional and advanced work after completing the required parts. Students are examined and marked on the dissection of each part required. Prepared bones are loaned to students during the session from a large collection kept for this purpose.

**Examinations.**—A practical, in addition to a written, examination is held by the Professor of Anatomy at the end of the second year. At the end of the first year there is a written review or examination on the work of the year.

**Advanced, Special, and Post-Graduate Courses.**—Facilities are offered to students and the medical profession for pursuing advanced, special, and post-graduate courses in practical anatomy.

### SUMMARY.\*

	<i>First Year.</i>	<i>Second Year.</i>
Lectures . . . . .	30 hours.	90 hours.
Demonstrations . . . . .	45 hours.	45 hours.
Recitations . . . . .	60 hours.	30 hours.
Dissection . . . . .	288 hours.	200 hours.

### EMBRYOLOGY.

Lectures . . . . .	15 hours.
Laboratory . . . . .	30 hours.

*Text Book.* Gerrish, second edition.

*Collateral Reading*—Cunningham; Morris; Gray; Quain; Toldt's *Atlas of Human Anatomy*; Woolsey, *Applied Surgical Anatomy*; Haynes, *Guide to Dissection and Manual of Anatomy*.

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\* This and the following summaries represent the total number of hours for each student.



PHYSIOLOGY.

AUSTIN FLINT, M.D., LL.D., *Professor of Physiology.*

*Assistant Professor and Instructor,*

DR. JOHN A. HARTWELL.

*Assistants.*

DR. JOSEPH S. WHEELWRIGHT,

ROBERT E. GABY, A.B.

Instruction in this branch is given by systematic lectures and recitations, with practical demonstrations and exercises, to first-year students during the second half of the session, and to second-year students during the first half of the session. During the second half of the session, review recitations, covering the entire first-year and second-year courses, are held once a week for the second-year class, as a preparation for the final college and the State examinations.

As a preparation for the study of physiology proper, first-year students, during the first half of the session, receive instruction in the gross anatomy of the thoracic and abdominal viscera, by section demonstrations in the department of Practical Anatomy. The histology of the heart and blood-vessels, respiratory organs, alimentary canal and glandular organs is taught in the laboratory and by recitations.

The regular second-year work in physiology is given during the first half of the session. Second-year students receive laboratory instruction in physiological chemistry in the department of Chemistry, Physics, and Toxicology. The same department gives instruction in optics and acoustics to first-year students, which serves as a preparation for the study of vision and audition in the second year. Second-year students receive laboratory instruction from the department of Histology in the histology of the nervous system and the organs of special sense. They also receive instruction from the department of Anatomy in the anatomy of the encephalon and cranial nerves, and from the department of Histology in the functional traits in the central nervous system.

**Lectures.**—The regular lectures for the first-year class begin

## CORNELL UNIVERSITY MEDICAL COLLEGE.

about the middle of January, and are continued three times weekly until the close of the session, on the following subjects and in the order named: The cell, blood, circulation, respiration, digestion and absorption, secretion and excretion, general metabolism, and animal heat and force. The regular lectures for the second-year class begin at the opening of the session, and are continued three times weekly until about the middle of January, on the following subjects and in the order named: The special senses, the nervous system, and embryology. Seven lectures on embryology, given in January by Professor Flint, are devoted to the development of the ovum up to and including the formation of the membranes. The first ten lectures of the course devoted to the special senses are given to the second-year class and the fourth-year class together. Fourth-year students are thus enabled to review the physiology of the special senses as a preparation for the study of ophthalmology and otology.

Throughout the entire course, while the subject of human physiology proper is fully covered, special attention is paid to its applications to the practice of medicine and surgery, much time being devoted to what may be called applied physiology.

**Recitations, Section Work, etc.**—Certain of the work in the histological laboratory is practically a part of the instruction in physiology. For first-year students, this includes laboratory work and recitations on the cell and karyokinesis, ciliary movements, blood, the histology of the simple tissues, heart, and vessels, respiratory system, digestive system, glandular organs, and the cellular mechanism of secretion. For second-year students the instruction includes a study, in the same manner, of the nervous system, organs of special sense, and the genito-urinary system. The instruction in physiological chemistry is given in the department of Chemistry to second-year students. It includes lectures upon physiological chemistry, laboratory work, and recitations on the carbohydrates and fats, proteids and albuminoids, food-stuffs, and the digestive secretions, endosmosis and exosmosis, and the chemistry of blood, bile, urine, and the simple tissues.

A laboratory course of forty hours is given to the second year students on the subject of Embryology. This is under the supervision of the department of Pathology.

In addition to the work in histology and physiological chemistry

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and in close connection with the lectures on physiology proper, the Assistant gives, three hours weekly, recitations, with frequent demonstrations and practical exercises, to each class, divided into sections of convenient size, for first-year students during the second half of the session, and for second-year students during the first half of the session. One additional hour is devoted weekly to demonstrations to each entire class of the subjects considered in the regular lectures for each week.

In the section-teaching, many demonstrations, by means of specimens, models, and apparatus, will be given, which cannot with advantage be made before the entire class, such as blood-counting, the capillary circulation, blood-pressure, the use of the sphygmograph, the general physiology of nerve and muscle, etc.

In the course of the section-work, students who prove themselves capable may be permitted to aid in the preparation and giving of the demonstrations when this does not interfere with other exercises, this corps of student-assistants being changed from time to time so that the privilege may be extended to as many as possible.

### SUMMARY.

	<i>First Year.</i>	<i>Second Year.</i>	<i>Fourth Year.</i>
Lectures . . .	45 hours.	45 hours.	6 hours.
Demonstrations . .	15 hours.	30 hours.	
Recitations . . .	45 hours.	60 hours.	

*Text Book*—Flint's *Handbook of Physiology*, fifth edition. 1905.

*Collateral Reading*—Kirke's *Handbook of Physiology*, nineteenth English edition, 1904; Schäffer's *Text Book of Physiology*; Stewart; Foster.

### ALLIED BRANCHES.

Physiological Chemistry (see department of Chemistry, Physics and Toxicology).

Embryology (see department of Pathology).

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CHEMISTRY, PHYSICS, AND TOXICOLOGY.

RUDOLPH A. WITTHAUS, M.D., *Professor of Chemistry.*

*Assistant Professor,*

DR. IVIN SICKELS.

*Instructors,*

DR. LOUIS W. RIGGS,

DR. CHARLES G. L. WOLF.

*Assistants,*

B. J. DRYFUS, M.D.,

M. McKIM MARRIOTT, B.S.

**Lectures.**—Students of the first year will receive three lectures each week on physics, the divisions of the subject being considered in the following order: General properties of matter and force, mechanics, hydrostatics, pneumatics, optics, electricity, heat, and acoustics. The lectures will be abundantly illustrated, and the relations of physics to surgery and medicine will be particularly considered.

During the second year, students will attend two lectures weekly. Organic chemistry will be considered in the earlier part of the term to an extent sufficient to impart a knowledge of the principles of combination of the carbon compounds and the properties and relationships of those which are of physiological, toxicological, or therapeutical interest. The lectures during the latter part of the second year will be upon physiological chemistry.

During the third year one lecture will be given weekly on toxicology for twenty weeks. In these lectures the medical and medico-legal bearings of the subjects will be chiefly considered.

**Recitations.**—Students of the first year will recite twice each week on the principles of chemistry and mineral chemistry. Those of the second year will recite once weekly on organic and physiological chemistry.

**Laboratory Work.**—Laboratory instruction will be given students of the first year four hours weekly during the entire session.

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This course will consist of an experimental study of the commoner elements and compounds in illustration of the recitation course, and of training in the processes of qualitative analysis of inorganic substances, and mineral poisons.

Students of the second year will receive laboratory instruction two hours weekly until February 14th, and four hours weekly after that date in physiological and clinical chemistry and organic toxicology.

Each student is fully supplied with all apparatus and chemicals required, except urinometers, which are carefully corrected for the student that they may serve for future use.

These courses are conducted by the instructors under the direction of the Professor of Chemistry and Physics.

First-year students presenting satisfactory evidence of having performed equivalent work in chemistry and physics will be excused from first-year work in this department, and be given advanced laboratory work equivalent in hours to that omitted.

### SUMMARY.

	<i>First Year.</i>	<i>Second Year.</i>	<i>Third Year.</i>
Recitations . . .	60 hours.	30 hours.	
Laboratory . . .	96 hours.	84 hours.	
Lectures . . .	90 hours.	60 hours.	20 hours.

*Text Book*—Witthaus, *Manual of Chemistry*; Riggs, *Laboratory Manual*.

*Collateral Reading*—Wolf, *Laboratory Handbook*; Ganot's *Physics*.

MATERIA MEDICA AND THERAPEUTICS.

HENRY P. LOOMIS, M.D.,

*Professor of Materia Medica and Therapeutics.*

*Instructors,*

DR. WARREN COLEMAN,

DR. EDMUND P. SHELBY,

*Instructor in Pharmacology.*

DR. ROBERT ANTHONY HATCHER, Ph.G.

*Clinical Assistant,*

DR. WILLIAM J. JONES.

Instruction is given in this department during the second, third, and fourth years by means of: 1. Lectures. 2. Clinical instruction. 3. Recitations. 4. Laboratory work.

**Lectures.**—These are given by the Professor twice a week to the third-year students and once a week to the fourth-year students. They are confined almost exclusively to therapeutics, as it is believed that materia medica can best be taught by recitations and by laboratory work.

The lectures to the third-year students will consider the therapeutic uses of the most important drugs from the standpoint of the drug itself, such as the methods of prescribing the drug and the conditions for which it is given; only so much of the physiological action of the drug will receive attention as will explain its therapeutic value.

The lectures to the fourth-year students will be confined almost exclusively to a consideration of the systematic treatment of the different diseases. The plan of treatment will be given in detail, with definite instruction as to the drugs to be used and the preparations which are most reliable.

Lectures will be given on remedial agents other than drugs, such as massage, dietetics, climatology, mineral waters, and hydrotherapy.

**Clinical Instruction.**—A new departure in the teaching of therapeutics will be made by affording the students of the third



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and fourth years opportunity to observe the effects of the different remedies on the natural course of diseases. To accomplish this the classes will be divided into small sections and taken by the Professor into the wards of Bellevue Hospital. Actual practice is given in the employment and application of the various therapeutic agents used in medicine, such as the aspirator, leeches, cups, cautery, stomach-tube and stupes. The hydropathic establishment connected with this hospital is one of the most complete in the country. Here to small sections will be demonstrated the various applications of water to the treatment of disease—such as baths, packs, douches, etc. A professional masseur will show the technique of massage and the Swedish movements. The treatment of the different diseased conditions observed will be systematically studied, and opportunities will be given to the members of the class to make personal examination of the patient and to watch the modification of disease produced by the remedies prescribed. The clinical work of the third and fourth years affords abundant opportunities for further training in practical therapeutics. A general medical clinic will be held by the Professor once a week in the amphitheatre of Bellevue Hospital, at which special attention will be given to the treatment of the diseases under consideration.

**Recitations.**—Students of the third year will recite to the instructor twice a week from a standard text-book. During the fourth year a recitation will be held once a week on therapeutics. The recitations will embrace a study of the action of all the more valuable remedial agents in connection with the description of the drugs themselves.

Each student will be thoroughly drilled in prescription-writing and in the doses of the more important drugs.

Examinations will be held at stated times during the session by the Professor to enable him to judge of each student's progress.

**Laboratory Work.**—The laboratory of *Materia Medica* occupies two floors of the Loomis Laboratory building; it is provided with a complete assortment of crude drugs and with all the various preparations of the *Materia Medica*; also with appliances for instruction in the methods of manufacturing pharmaceutical preparations. The laboratory is equipped with instruments and appliances for special research in the physiological action of drugs.

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The large class room is supplied with sixty tables, equipped with gas, electric lights, water connections, and full apparatus, enabling each student to work separately under the supervision of the instructors.

The course of laboratory instruction is taken during the second year, and consists of six hours each week for half the year. The class is divided into small sections, which are under the personal supervision of the instructors. The method of teaching is distinctly practical. Instruction includes numerous exercises involving the manipulation of crude drugs and preparations, the occasion being used to review their physical, chemical, and medical properties.

About half of the laboratory course will be devoted to demonstrations and operations by the students upon frogs and mammals. This instruction, termed pharmacodynamics, is recognized as essential for a correct understanding of therapeutics.

In addition to these exercises the student will have frequent opportunities for examining the extensive materia medica collection, the ability to recognize the more important specimens being obligatory.

Considerable attention will be paid to prescription writing, and test prescriptions are compounded by members of the class.

### SUMMARY.

	<i>Second Year.</i>	<i>Third Year.</i>	<i>Fourth Year.</i>
Lectures . . . .		47 hours.	30 hours.
Recitations . . . .		60 hours.	30 hours.
Laboratory . . . .	90 hours.		
Clinics . . . .		30 hours.	30 hours.
Sections . . . .		5 hours.	5 hours.

*Text Book*—White and Wilcox, *Materia Medica and Therapeutics*.

*Collateral Reading*—Coleman, *Syllabus of Materia Medica*, *American Text Book of Applied Therapeutics*; Thompson, *Practical Dietetics*; Sollman's *Pharmacology*.

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## MEDICINE.

W. GILMAN THOMPSON, M.D., *Professor of Medicine.*

### *Professors of Clinical Medicine,*

ALEXANDER LAMBERT, M.D.,

CHARLES E. NAMMACK, M.D.,

WARREN COLEMAN, M.D.,

LEWIS A. CONNER, M.D.

### *Instructors and Assistants,*

DR. C. N. BANCKER CAMAC,

DR. THOMAS WOOD HASTINGS,

DR. MONTGOMERY H. SICARD,

DR. JOHN W. COE,

DR. FREDERICK L. KEAYS,

DR. WALTER L. NILES,

DR. THEODORE B. BARRINGER,

DR. NATHANIEL R. NORTON,

DR. MORTIMER WARREN.

The Course of Medicine comprises a graded plan of study extending throughout three years. General didactic lectures upon the practice of medicine are wholly supplanted by bedside and dispensary instruction and recitations. The course includes the following subdivisions:

#### Second Year:

Recitations from a text-book upon elementary medicine, with written reviews.

#### Third Year:

1. Recitations from an advanced text-book, with written reviews.
2. Physical diagnosis of the heart and lungs.
3. History-recording.
4. Bedside course in symptomatology.
5. Dispensary course in general medicine.
6. Clinical pathology.
7. Twenty lectures on symptomatology.
8. Hospital medical clinics.

#### Fourth Year:

1. Advanced bedside study in symptomatology and diagnosis.
2. Demonstrations of patients by the student before the class in the out-patient clinic.
3. Physical diagnosis.
4. Hospital medical diagnosis clinics.
5. Medical conferences.

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6. Ten lectures upon diatheses, toxæmias, etc.
7. Elective advanced work in clinical diagnosis (clinical pathology, history-recording, etc.).
8. Recitations in medicine.

The details of the methods of instruction in medicine for each year of the curriculum are as follows:

### SECOND YEAR.

**Recitations.**—Second-year students begin the study of medicine with systematic recitations each week from an elementary text-book, in which the subjects of nomenclature, etiology, morbid anatomy, and typical symptoms only are dwelt upon.

### THIRD YEAR.

**Recitations.**—Third-year students recite twice each week from an advanced text-book on the Practice of Medicine, special emphasis being given to symptomatology, complications, diagnosis, and treatment.

Written reviews are held at intervals to familiarize the student with examinations. All recitations are obligatory, and the recitation marks received form an important component of the final examination marks of the year.

**Ward Work.**—Systematic and obligatory ward work is begun in classes not exceeding fifteen students each, who accompany the Professors of Clinical Medicine on rounds through the hospital wards. Examples of all the common diseases are studied, and the student has opportunity personally to examine many cases of disease in different stages of development, and of following their daily progress. A special course in general medical diagnosis is given at the bedside, in which the student observes cases illustrating all the important physical examinations.

**Dispensary Classes.**—Students in small classes are instructed in general medical diagnosis by Dr. Barringer in the new Out Patient Department of Bellevue Hospital.

**Clinical Laboratory Courses** are conducted in immediate connection with the study of hospital and dispensary cases.

The laboratory is designed to meet the three requirements of:

- (1) *Teaching*; (2) *Original Research*, and (3) *Diagnosis*.

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(1) *Teaching.* The third-year class is divided into small sections, so that each member receives the personal assistance of the demonstrator. At the conclusion of the course a written and practical examination is held, and the result of this, as well as the character of the work done by each student, is included in the general average mark received by him in medicine. When assigned to cases at the general medical clinic in the fourth-year the student is required to report the result of his examination of the sputum, blood, urine, etc.

The apparatus employed may readily be transported to the bedside, the work being thus essentially practical, and the student *himself* uses it so that he may become familiar with its care and application.

The course comprises the thorough study of the sputum, blood, gastric contents, fæces, urine, exudates and transudates.

Each student is furnished typical specimens which he stains and studies at the demonstrations.

(2) *Original Research.* Facilities are offered to graduate and undergraduate special students for the undertaking and publication of original investigations.

(3) *Dispensary, Hospital, and Clinical Laboratory Examinations.* The laboratory is a working part of the Cornell Dispensary. The visiting staff of this Dispensary, as well as that of the adjacent hospital, use the laboratory extensively for completing the data of their cases. Students who have completed their third year, and whose standing is good, may, under the supervision of the instructors, employ their summer months in following this work in the laboratory.

**Physical Diagnosis.**—Physical diagnosis of the chest is taught in classes not exceeding a dozen students each. This course of 30 lessons for each class is very comprehensive, owing to the large number of patients in the class of heart and lung diseases at the College Dispensary and in the wards of Bellevue Hospital.

The work consists of the study of:

- (1). Medical anatomy of the normal thorax and physical signs of the contained viscera.
- (2). Pathological conditions of the thoracic viscera with special reference to Methods of Physical examination; Physical Signs in Disease.



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**General Medical Clinics.**—Students of the third year are required to attend a clinic in general medicine conducted by Professor Lambert (commencing in December), and also the clinic in medical diagnosis conducted by Professor Thompson, and the clinic in general therapeutics by Professor Loomis, as described for the fourth year. These clinics are held weekly in the amphitheatre of Bellevue Hospital.

**Lectures.**—A course of twenty lectures upon general symptomatology is given by the Professor of Medicine, which is designed as introductory to the systematic bedside teaching which he conducts upon hospital rounds.

### FOURTH YEAR.

**Bedside Instruction** is given by the Professor of Medicine to sections not exceeding fifteen students, in the wards of the Presbyterian Hospital until January 1st, and in those of Bellevue Hospital thereafter, throughout the year. In these sections each student is assigned in turn to special cases for thorough study. Ward classes are also conducted by Dr. Conner at the Hudson Street Hospital, and by Drs. Lambert and Nammack in Bellevue Hospital.

**Clinics.**—Medical clinics are held weekly in the amphitheatre of Bellevue Hospital by the Professor of Medicine. At these clinics students read written histories of cases which they have previously studied in the hospital wards. They are required to demonstrate their findings upon the patient, and are questioned before the entire class in regard to diagnosis, etc. These clinics are also utilized by the Professor of Medicine to exhibit cases of exceptional rarity or difficult diagnosis, and a few of them are conducted in coöperation with the Professor of Surgery in order to present to the students the value of conjoint medical and surgical points of view in appropriate cases. A second general medical clinic is held weekly in the Bellevue amphitheatre by the Professor of Therapeutics, at which the effects of treatment are made the prominent feature.

An out-patient clinic is also held weekly by the Professor of Medicine in the Dispensary of the College, at which students are given ample opportunity to examine patients, study minor ailments, as well as all the forms of disease in the ambulatory cases



## CORNELL UNIVERSITY MEDICAL COLLEGE.

of a large and varied clinical service. More than 5,000 cases were treated during the past year in this department alone of the dispensary.

**Dispensary Classes**, comprising a dozen students each are conducted in periods of five weeks for two hours twice a week. The students are taught methods of complete general physical examination, diagnosis, prognosis and treatment, and of history recording. Opportunity is afforded to follow the progress of cases from week to week, and to make clinical examinations of the sputum, blood, etc., in each case.

**Lectures.**—A course of ten lectures is given by the Professor of Medicine upon such general topics as the diatheses, toxæmias, auto-intoxication, cachexias, etc. Three lectures are also given by Dr. Conner upon the Internal Secretions, and three lectures by Dr. Camac upon the Clinical Aspects of Immunity.

**Medical Conferences.**—Under Dr. Coleman's direction, students are assigned to special cases which they study in detail for several weeks, reviewing the literature of the subject, and which they then report in writing at a medical conference, at which their fellow-students are called upon to offer criticisms and general discussion.

An elective course in advanced clinical pathology and diagnosis is offered in the fourth year.

### SUMMARY.

	<i>Second Year.</i>	<i>Third Year.</i>	<i>Fourth Year.</i>
Lectures . . . .		20 hours.	10 hours.
Recitations . . . .	30 hours.	60 hours.	30 hours.
Clinics . . . .		46 hours.	66 hours.
Sections . . . .		50 hours.	78 hours.

### CLINICAL PATHOLOGY.

Laboratory . . . .	60 hours.
Recitations . . . .	6 hours.

*Text-Books*—Thompson's *Practical Medicine*; Musser, *Medical Diagnosis*; Tyson's *Physical Diagnosis*; Salinger and Kalteyer, *Medicine*.

*Collateral Reading*—*American System of Practical Medicine*, Loomis-Thompson.

# CORNELL UNIVERSITY MEDICAL COLLEGE.

## SURGERY.

LEWIS A. STIMSON, M.D., *Professor of Surgery.*

### *Professors of Clinical Surgery,*

FREDERIC S. DENNIS, M.D.,	FREDERICK GWYER, M.D.,
GEORGE WOOLSEY, M.D.,	FRANCIS W. MURRAY, M.D.,
FREDERICK KAMMERER, M.D.,	PERCIVAL R. BOLTON, M.D.,
ALEXANDER B. JOHNSON, M.D.	

### *Instructors,*

DR. BENJAMIN TILTON,	DR. CHARLES L. GIBSON,
DR. JOHN ROGERS, JR.,	DR. ARCHIBALD E. ISAACS,
DR. JAMES MORLEY HITZROT.	

### *Assistants,*

DR. GEORGE E. DODGE,	DR. WILLIAM F. STONE,
DR. WILLIAM A. DOWNES.	

Surgery will be taught in the recitation room, at the bedside, in the dispensaries, at hospital clinics, and by lectures.

**In the second year** the students are required to attend recitations on the principles of surgery two hours a week throughout the term. For this purpose the class is divided into small sections to insure thorough work; so far as time permits instruction will also be given at the bedside.

**In the third year** recitations are continued upon regional surgery; the class is instructed in sections in Bellevue Hospital in history-taking and methods of surgical examination and diagnosis, three hours a week for part of the term; and also two hours a week bedside instruction. Formal clinics are held in Bellevue, New York, and other hospitals; about thirty lectures will be given by the Professor of Surgery, and a clinic for diagnosis is held once a week throughout the term, at which the students are required personally to examine and report upon the cases.

**In the fourth year** the students will receive clinical instruction in small groups in several hospitals and dispensaries upon

## CORNELL UNIVERSITY MEDICAL COLLEGE.

general surgery and the special branches—eye, ear, nose and throat, genito-urinary diseases, dermatology and orthopædics; may attend the lectures and clinics, and will have a review quiz in preparation for examination.

The members of the sections are trained in the examination of patients, the dressing of wounds and fractures, the administration of ether and assisting at operations.

The opportunities for the instruction in the special branches are exceptionally ample. There are several clinical teachers in each subject, each with hospital and dispensary services. The student will be enabled directly to examine and study cases, and will have a certain choice as to the time given to each branch.

In addition to the clinics at Bellevue and the New York hospitals specified above, Dr. Gibson will give clinics at St. Luke's and the General Memorial hospitals at dates to be announced during the session.

Lectures on special topics are given in the college lectures courses in the second term, to which students of all the classes are admitted.

**Operative Surgery** will be taught to small sections of the class in the fourth year. The course consists of recitations, work upon the cadaver, and bandaging. As the material is abundant, each member of the class will perform the principal surgical operations.

*Special instruction* in operative surgery is offered to graduates in medicine. A circular giving particulars may be had on application to the Secretary.

### SUMMARY.

	<i>Second Year.</i>	<i>Third Year.</i>	<i>Fourth Year.</i>
Lectures . . . .		36 hours.	36 hours.
Recitations . . . .	60 hours.	60 hours.	30 hours.
Clinics . . . .		86 hours.	86 hours.
Sections . . . .		25 hours.	35 hours.
Operative Surgery .			30 hours.

*Text-Book*—Tillmann.

*Collateral Reading*—*American Text-Book*; Parks' *Surgery*; Stimson's *Fractures and Dislocations*; Stimson's *Operative Surgery*; Dennis, *System of Surgery*.

OBSTETRICS.

J. CLIFTON EDGAR, M.D., *Professor of Obstetrics and Clinical Midwifery.*

*Instructors,*

DR. RUSSELL BELLAMY,

DR. ALBERTUS A. MOORE,

DR. GEORGE D. HAMLEN,

DR. I. L. HILL,

DR. GUSTAVE SEELIGMANN.

Instruction in obstetrics will be given during the second, third, and fourth years by—

1. Recitations. 2. Illustrative lectures. 3. Obstetric clinics and conferences. 4. Attendance upon cases of confinement. 5. Manikin practice and section work. 6. Obstetric histology, pathology, and bacteriology.

1. **Recitations** from a standard text-book will be held by an instructor in obstetrics during the second year upon the physiology, and during the third upon the pathology, of obstetrics, the latter including obstetric surgery.

These recitations are so scheduled as to cover the entire field of the subject laid out for the college year, are supplementary to the work of the Professor of Obstetrics during each of these two years, and prepare the student for an intelligent appreciation of his subsequent illustrative lectures, obstetric conferences, attendance upon cases of confinement, clinics, and manikin practice.

2. **The Illustrative Lectures** comprise a systematic course, running through the third year, upon the physiology and pathology of obstetrics.

These lectures are theoretical to a limited extent only, being mainly demonstrative and illustrative in character. To this end ample blackboard space is used, as well as an abundant collection of pelvises, entire, normal and deformed, mesial sections of the same, and in addition a supply of diagrams, charts, carefully selected plaster, composition, and metal models, wet and dry preparations, and instruments.

In conjunction with these lectures additional recitations are held by the Professor of Obstetrics upon the subject-matter of the college year and for final review.

**3. Obstetric Clinics and Conferences.**—A weekly obstetric clinic is held by Professor Edgar a portion of the year for both the third and fourth-year classes at the Manhattan Maternity and Dispensary, 327 East 60th Street. At this clinic abnormal cases of pregnancy, labor, and the puerperium are demonstrated, and the major and minor obstetric operations performed.

In addition, infant feeding and the care of mother and child during the lying-in period and early infancy are taught. During both the third and the fourth year, members of the class will be called upon in rotation to examine patients and discuss etiology, diagnosis, prognosis, and treatment. These "obstetric conferences" will review the illustrative lectures, manikin work, and the student's work in his attendance upon confinement cases. By this means each individual student's standing in the department of obstetrics is ascertained. During the latter half of the second year six obstetric clinics are given at the hospital. Attendance upon these clinics is optional.

**4. Attendance upon Cases of Confinement.**—Each candidate for the degree of M.D. is required to present satisfactory evidence to the effect that he has attended a definite number of cases of confinement. To fulfill this requirement students may register as internes in the Manhattan Maternity and Dispensary, 327 East 60th Street, and receive this practical instruction from Professor Edgar and the instructor in obstetrics. Students are lodged in the above hospital for periods of two weeks or more and attend confinement cases both in the hospital building and in the tenement-house districts of the upper east side of the city.

During the student's attendance upon his practical maternity course he may be excused from the exercises of the College during the fourth college year, otherwise he shall take his practical obstetric course during vacation time. Further information concerning the practical obstetric work may be obtained by applying at the Secretary's office.

**5. Manikin Practice and Section Work.**—Manikin practice is given to sections of the class during the fourth or senior year, and consists of work by individual students upon the manikins, under the supervision and criticism of an instructor.

The mechanical phenomena of labor; modes of delivery; abnormal presentations and positions, with methods of delivery of each;



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version; application of the forceps, and other manipulations, will be demonstrated by the instructor and performed by the student.

Diagrams, models, casts, wet and dried specimens, will be used in the demonstrations.

The sections will also be instructed at the bedside at the Emergency Hospital and Manhattan Maternity and Dispensary in the management of pregnant and parturient women, the care of the newborn child, abdominal palpation, and pelvic mensuration.

**6. Obstetric Histology, Pathology, and Bacteriology.**—Laboratory instruction is given during the third year by the Professor of Pathology upon the histology of the vulva, vagina, uterus, ligaments, Fallopian tubes, and ovaries in the pregnant and non-pregnant conditions, and upon the histology and pathology of the decidua, chorion, placenta, and umbilical cord.

### SUMMARY.

	<i>Second Year.</i>	<i>Third Year.</i>	<i>Fourth Year.</i>
Lectures . . . .		30 hours.	30 hours.
Recitations . . . .	30 hours.	30 hours.	
Clinics . . . .		30 hours.	30 hours.
Sections . . . .		15 hours.	

*Text-Book*—Edgar's *Practice of Obstetrics*.

### GYNÆCOLOGY.

WILLIAM M. POLK, M.D., *Professor of Gynæcology.*

#### *Instructors,*

DR. GEORGE D. HAMLEN,  
DR. GEORGE G. WARD, JR.,

DR. CHARLES C. BARROWS,  
DR. JOHN ASPELL.

Instruction in gynæcology is given by recitations, lectures, ward and class-room demonstrations, clinics, and laboratory demonstrations.

**Six Lectures**, upon topics of special interest and importance to the subject as a whole, will be given during the fourth year.

**Recitations** are planned to cover the entire subject, and are held one hour a week during the fourth year of the course. In order that the instruction throughout the department may be as



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nearly in unison as possible, a synopsis of the subject-matter of each lesson is prepared by the instructor and amended and revised by the head of the department. This is presented to the student for comparison with his text-book, to which it is an addendum. This method insures the coöperation of the head of the department in the groundwork of his subject and enables him to keep in touch with each student until his graduation.

**Class-room and Ward Demonstrations** are given to sections of the fourth-year class twice a week throughout the year. This instruction includes the examination of patients by the students, who are thereby drilled in the methods of physical diagnosis as applied to the pelvis. When necessary the patients are anesthetized.

The routine of treatment appropriate to the various conditions found is demonstrated, the students assisting when possible. In this way, not only is familiarity acquired with normal conditions within the pelvis and the various departures from this state induced by disease, but opportunity is afforded to see and put in actual practice measures of relief and to watch the subsequent course and treatment of these cases.

Operations are performed three days every week at which the several sections are enabled to study the detail of every operation peculiar to this department.

**A General Clinic** is held once a week at which students selected in rotation are required to examine the patient, make a diagnosis, and suggest treatment. They are questioned before the class upon all these topics, as they relate to the case in hand, so as to determine the correctness of their conclusions. Should operation be called for, it is then performed.

**Laboratory Demonstrations** of secretions, discharges, and specimens obtained from patients who come under observation during this course are made to sections of the third-year class as a part of the course in clinical pathology.

### SUMMARY.

	<i>Third Year.</i>	<i>Fourth Year.</i>
Lectures . . . . .	6 hours.	6 hours.
Recitations . . . . .		30 hours.
Clinics . . . . .	30 hours.	30 hours.
Sections . . . . .		20 hours.

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*Text-Book*—Penrose's *Gynecology*.

*Collateral Reading*—Dudley's *Gynecology*; Garrigues' *Diseases of Women*.

### DEPARTMENT OF PATHOLOGY.

INCLUDING HISTOLOGY, GROSS AND MICROSCOPICAL PATHOLOGY, AND BACTERIOLOGY.

JAMES EWING, M.D., *Professor of Pathology*.

DR. BERTRAM H. BUXTON, *Professor of Experimental Pathology*.

DR. JEREMIAH S. FERGUSON, *Instructor in Histology*.

DR. OTTO H. SCHULTZE, *Instructor in Gross Pathology*.

DR. MAX G. SCHLAPP, *Instructor in the Histology and Pathology of the Nervous System*.

DR. WILLIAM J. ELSER, *Instructor in Bacteriology*.

DR. JAMES C. JOHNSTON, *Instructor in Pathology*.

DR. ISRAEL STRAUSS, *Instructor in Embryology*.

DR. HENRY T. LEE, *Assistant in Pathology*.

DR. GUY D. LOMBARD, *Assistant in Histology*.

DR. J. C. ROPER, *Assistant in Histology*.

DR. JOHN C. TORREY, *Fellow in Experimental Pathology*.

DR. GEORGE PATTEN BIGGS, *Demonstrator of Gross Pathology*.

DR. LEOPOLD JACHES, *Assistant in the Histology and Pathology of the Nervous System*.

DR. RICHARD WEIL, *Demonstrator in Gross Pathology*.

DR. HARVEY E. JORDAN, *Assistant in Histology and Embryology*.

DR. THOMAS A. NEAL, *Assistant in Gross Pathology*.

DR. FRANK M. HANTOON, *Assistant in Bacteriology and Pathology*.

### HISTOLOGY.

The work in this subject is conducted throughout the first and during a portion of the second year by laboratory exercises and by recitations. Laboratory exercises, in two two-hour sessions weekly during the first year, and one two-hour session weekly during the second year, occupy in all about 150 hours for each student. The work covers the construction and use of the microscope, the methods of preparing microscopical sections of

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tissues, and the normal histology of the various tissues and organs of the human body. Attention is constantly directed to the application of the knowledge to physiology, and to further this end the courses in physiology and histology proceed as far as possible in unison. When desirable the structure of human tissues and organs is illustrated by sections of embryonal and lower vertebrate tissues.

In the first year the blood and simple tissues, the gastrointestinal tract and adnexa, and the respiratory, circulatory, and genito-urinary organs are studied. In the second year the organs of the special senses and the nervous system are considered.

**Recitations.**—One recitation weekly for each student is held during the first year, and the first half of the second year, on subjects assigned from the text-book on histology. These recitations are designed to completely familiarize the student with the structure of the tissues considered during the previous week in the laboratory exercises.

An examination is held at the end of each year. The standing of the student in this, as in the other subjects, is determined equally from the work in the laboratory exercises and in the recitations.

### EMBRYOLOGY.

In the latter half of the first year, a series of topics in embryology, which have special importance in medicine and pathology, are presented in a laboratory course, occupying about 40 hours for each student. These topics embrace the fertilization and maturation of the ovum, formation of germ layers, and the main facts regarding the development of the different systems and viscera. These topics are illustrated by microscopical sections, charts, lantern slides, and the Ziegler models. The laboratory course is supplemented by a course of fifteen lectures.

### PATHOLOGY.

The course of instruction in pathology in the second year comprises a preliminary course of lectures on the theory and classification of inflammations, which is designed to acquaint the student with the main facts in this field, to prepare him for pre-

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liminary studies in medicine and surgery, and to establish a uniform system of nomenclature to be used in this and other departments. During one half the second year, also, attendance is required at one weekly demonstration in gross pathology, at which the more common visceral lesions are exhibited. This course is designed to accompany the preliminary recitations in medicine and surgery of the second year.

The main branches of the subject are grouped in the third year in order to secure the simultaneous study of the gross and microscopical changes in diseased tissues. In the fourth year the students perform autopsies, and attend lectures in special pathology.

**Microscopical Demonstrations in Pathology.**—The microscopical demonstrations occupy three two-hour sessions weekly throughout the year, in all about 175 hours. The specimens studied illustrate the topics of inflammation, tumors, autointoxications, infectious diseases, and diseases of the nervous system and are supplemented by lectures, and special demonstrations by means of sections, charts, lantern slides, and micro-photographs.

**Demonstrations in Gross Pathology.**—On the days alternating with the microscopical studies demonstrations of gross pathological specimens are given to the students of the third year, with the material collected from autopsies. With the viscera of each case is presented an epitome of the clinical history, and, when necessary, frozen sections of the organs, and the clinical symptoms are explained from the gross and microscopical changes in the altered tissues. The student here sees the viscera of many of the fatal cases which he has studied in the wards of the hospital.

Gross pathological diagnosis is taught as a separate branch of this subject, not bearing directly on the clinical aspect of the case.

These demonstrations occupy three two-hour sessions weekly, each section of the class attending one exercise weekly throughout the year.

**Post-Mortem Examinations.**—Students of the fourth year are required to perform autopsies under the direction of the instructor in gross pathology, when they are made familiar with the technical procedures required in ordinary and in medico-legal cases.

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**Recitations.**—One recitation weekly is required of each student throughout the third year.

**Lectures.**—A series of lectures on special topics in pathology is given to students of the third and fourth years. These topics have included: The Mechanism of Immunity, The Etiology of Tumors, Cerebral Hemorrhage, Comparative Morphology of Cerebral Cortex, etc. Attendance at these lectures is optional.

**Experimental Pathology.**—During the year 1903 definite plans were formed to facilitate experimental studies in the Department of Pathology. The direct object of the plans is to associate together a number of competent workers whose time shall be entirely devoted to the study of problems in medical science.

Abundant space and modern facilities have been provided for experimental work in cellular pathology, bacteriology, and physiological chemistry, and are available to approved applicants who desire to engage in this work, under the immediate direction of Professor Buxton. Dr. Torrey has been appointed a member of this staff, and further appointments in the several branches involved will be made according to the requirements of the work undertaken.

It is the ultimate object of the present plans to increase the number of these workers and enlarge their facilities until they shall form a fully equipped institution of experimental medicine.

### BACTERIOLOGY.

The laboratory course in bacteriology occupies three two-hour sessions each week for one-half of the second year—in all, ninety hours for each student. The student is first made familiar with the methods of disinfection, and is required to prepare the ordinary culture media. The work then proceeds to the methods of staining and examining bacteria; their artificial cultivation and the study of biological characters; the methods employed in the separation of species; the general relation of pathogenic bacteria to disease; and concludes with the biological analysis of air, water, soil, and milk. Cultures are made from the viscera of cases of the various infectious diseases, and the student is required to cultivate and identify the important pathogenic microorganisms. The work is supplemented when necessary by the



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use of pure cultures, by the exhibition of anærobic cultures, and to a limited extent by inoculation in animals.

**An Advanced Course** in bacteriology is offered to those students who have been able in the first year to attend the course required in the second year.

This course includes the cultivation of other pathogenic microorganisms, the separation of species, and the bacteriological examination of viscera secured at autopsies.

**Advanced Courses and Original Research.**—The abundant facilities of the laboratory on the fourth floor of the new building can be offered to properly qualified students and practitioners of medicine who wish to pursue advanced courses of study on lines of original research, under the direction of special instructors.

### SUMMARY.

<i>Histology:</i>	<i>First Year.</i>	<i>Second Year.</i>	<i>Third Year.</i>	<i>Fourth Year.</i>
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Recitations .	60 hours.	30 hours.		
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Laboratory .	120 hours.	60 hours.		
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*Embryology:*

Laboratory .	40 hours.			
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Lectures .	15 hours.			
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*Pathology:*

Lectures .		10 hours.		
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Laboratory			180 hours.	
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Recitations .			30 hours.	
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*Gross Pathology:*

Laboratory .	15 hours.	60 hours.	30 hours.	
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*Bacteriology:*

Laboratory .	90 hours.			
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*Text-Books: Histology*—Ferguson, *Text-Book of Histology*.

*Pathology*—Delafield and Prudden, *Pathological Anatomy and Histology*.

*Bacteriology*—Muir and Ritchie, *Manual of Bacteriology*.

*Collateral Reading*—Orth, *Pathological Diagnosis*; Ziegler, *General Pathology*; Sternberg and Minot, *Manual of Bacteriology*; Ewing, *Pathology of the Blood*; *Embryology*.



# SPECIAL DEPARTMENTS OF MEDICINE AND SURGERY.

## DISEASES OF CHILDREN.

JOSEPH E. WINTERS, M.D., *Professor of Diseases of Children.*

*Clinical Instructors,*

DR. WALTER A. DUNCKEL, DR. WILLIAM SHANNON.

*Assistants,*

DR. ROBERT S. ADAMS,	DR. HORACE S. STOKES,
DR. SAMUEL M. EVANS,	DR. JOHN H. P. HODGSON,
DR. ELISHA M. SILL,	DR. LESTER M. HUBBY.

This department will embrace clinical instruction and section teaching in all the important diseases of infancy and childhood.

There will be one clinical lecture each week in the college building, and clinical lectures in the Willard Parker Hospital on scarlet fever and diphtheria.

In connection with the dispensary of the Children's Department in the college building there is an amphitheatre for section teaching, and isolation rooms for contagious diseases, so that students have ample opportunity for the personal study of disease.

Two hours each week will be devoted to section teaching in the dispensary to the students of the fourth year.

Students will be required to examine sick children and discuss the diagnosis and treatment of patients assigned to them.

Special attention is given to the hygiene and feeding of infants; the digestive disorders of infants; the dietetics of childhood and the food disorders of infancy and childhood; the anatomical and physiological peculiarities of infancy and childhood; and the influence these peculiarities have on the manifestations of disease in children.

One of the distinguishing features of this department will be the instruction of each student in the art of diagnosis, by the professor in charge.

There will be practical bedside illustrations of the manage-

## CORNELL UNIVERSITY MEDICAL COLLEGE

ment, care, and therapeutics of all the acute diseases of infancy and childhood.

In the clinical laboratory microscopical examinations will be made of secretions and excretions, of lesions of the mouth and throat, and of sections of anatomical lesions of the important diseases of childhood.

### SUMMARY.

	<i>Third Year.</i>	<i>Fourth Year.</i>
Clinics . . . . .	30 hours.	30 hours.
Sections . . . . .		10 hours.

*Text-Book*—Williams, *Medical Diseases of Infancy and Childhood*.

*Collateral Reading*—Starr, *American Text-Book on the Diseases of Children*.

## SURGICAL DISEASES OF THE GENITO-URINARY ORGANS.

SAMUEL ALEXANDER, M.D., *Professor of Genito-Urinary Surgery.*

*Clinical Instructor,*

DR. FRANCIS C. EDGERTON.

The course is required of students during the third and fourth years, and is designed to give instruction in diagnosis and treatment of the surgical diseases of the male genital and urinary organs and in syphilis. It consists in recitations, lectures, clinics, and section work in the dispensary of the college and in the wards of Bellevue Hospital.

**Recitations.**—Recitations are held during the third and fourth years by the instructors in the department of general surgery.

**Lectures.**—One lecture a week from the opening of the term to the first of December will be given by Professor Alexander at the college. A syllabus of these lectures will be furnished to each member of the class.

**Clinic.**—A clinic will be given in the amphitheatre of Bellevue Hospital once each week after the first of January by Professor Alexander. At this clinic the principal operations upon the male urinary and genital organs will be performed before the class,

## CORNELL UNIVERSITY MEDICAL COLLEGE.

and special attention will be given to the subject of diagnosis and post-operative management of cases. Attendance upon these clinics is required by students during the third and fourth years.

**Section Teaching at the College Dispensary and at Bellevue Hospital.**—The third-year class will be divided into sections of small size, and instruction will be given by the Chief of Clinic and the instructors in the college dispensary. Special attention will be given in this course to the diagnosis and treatment of the venereal diseases and the use of special instruments.

The fourth-year class will be divided into sections of small size, and instruction will be given in the wards of Bellevue Hospital or in the college dispensary by Professor Alexander or the Chief of Clinic. This course will be devoted principally to the diseases of the urinary organs and to instruction in the use of special instruments and apparatus and the post-operative treatment of cases.

### SUMMARY.

	<i>Third Year.</i>	<i>Fourth Year.</i>
Clinics . . . . .	18 hours.	18 hours.
Sections . . . . .	15 hours.	10 hours.
Lectures . . . . .		6 hours.

*Text-Books*—White and Martin, Keyes.

*Collateral Reading*—Hyde and Montgomery, Keyes and Chetwood.

## NERVOUS DISEASES.

CHARLES L. DANA, M.D.,

*Professor of Diseases of the Nervous System.*

*Instructors,*

DR. JOSEPH FRAENKEL,

DR. J. RAMSAY HUNT.

*Assistants,*

DR. ROBERT M. DALEY,

DR. LESLIE J. MEACHAM.

DR. ALEXANDER S. LEVERTY,

DR. FRANK W. ROBERTSON.

The regular work consists of a preliminary series of lectures by Professor Dana, in which the general outline of the work for the year is given, with demonstrations of the general anatomy,

## CORNELL UNIVERSITY MEDICAL COLLEGE.

general symptomatology, and methods of examination of the nervous system. During the rest of the term clinical lectures on nervous diseases are held weekly in the amphitheatre of Bellevue Hospital or at the college. Section work is given weekly to classes in the wards of Bellevue Hospital, and three times a week in the dispensary of the college. In this dispensary, section-work instruction is given in history-taking in the examination of patients, and in electro-therapeutics.

It is considered of the greatest importance that the student of nervous diseases be thoroughly grounded in the anatomy and physiology of the nervous system, therefore courses in gross and microscopical anatomy of the nervous system are provided in the histological laboratory. Special students can also take courses on the pathology of the nervous system.

Thus the course of instruction aims to provide the student before he graduates with instruction in the microscopical anatomy of the nervous system, in its physiology and pathology, and also with practical clinical instruction in the amphitheatre, at the bedside, and in the dispensary.

### SUMMARY.

	<i>Third Year.</i>	<i>Fourth Year.</i>
Lectures . . . . .	5 hours.	
Clinics . . . . .	20 hours.	20 hours.
Sections . . . . .	15 hours.	5 hours.

*Text-Book*—Dana, *Diseases of the Nervous System and Psychiatry*.

*Collateral Reading*—Gower's *Diseases of the Brain and Spinal Cord*; works on nervous diseases by Dercum, Mills, Sachs, Starr, Obersteiner, *Anatomy of the Nervous System*.

## PSYCHIATRY.

ADOLF MEYER, M.D., *Professor of Mental Diseases*.

*Clinical Instructors,*

DR. GEORGE H. KIRBY,

DR. AUGUST HOCH.

A series of five introductory lectures will be followed by eight clinics of two hours each at the Manhattan State Hospitals on Ward's

## CORNELL UNIVERSITY MEDICAL COLLEGE.

Island, and seven optional lectures reviewing the clinical demonstrations. Provision will be made for some optional section work on Ward's Island or at the College Dispensary.

The course is to cover the principal data and methods of modern psychopathology, the diagnosis and legal commitment of the insane and the medico-legal problems of insanity.

### SUMMARY.

Introductory lectures .....	5 hours.
Clinics .....	14 hours.
Lectures (optional).....	7 hours.
Section work (optional).....	4 hours.

*Text-Book*—Dana, *Mental Diseases*; Paton, *Psychiatry*; Kraeplin, *Clinical Lectures on Psychiatry*.

*Collateral Reading*—Tuke's *Dictionary of Psychological Medicine*.

## DERMATOLOGY.

GEORGE T. ELLIOT, M.D., *Professor of Dermatology*.

*Clinical Instructors,*

DR. JAMES C. JOHNSTON,

DR. EDWARD PISKO.

Instruction in Dermatology will be given by the Clinical Professor and his assistants. No teaching will be given didactically, but the cutaneous diseases will be demonstrated on the living subject. Abundance of material for such instruction is obtainable, and the student can thoroughly familiarize himself with the more common as well as with the rarer diseases of the skin by actual personal contact and observation. Attention is particularly paid to the diagnosis and the etiology of skin diseases, but their therapeutics also receive due consideration.

### SUMMARY.

*Fourth Year.*

Sections . . . . . 25 hours.

*Text-Books*—J. Nevins Hyde, *Dermatology*; H. Stilwagon, *Diseases of the Skin*.

*Collateral Reading*—H. Radcliffe Crocker, third edition.

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## LARYNGOLOGY AND RHINOLOGY.

CHARLES H. KNIGHT, M.D., *Professor of Laryngology.*

*Instructor,*

DR. JAMES E. NEWCOMB.

*Assistants,*

DR. FRANK T. BURKE,

DR. WALTER C. MONTGOMERY,

DR. CHARLES MACK,

DR. PERRY SCHOONMAKER.

Instruction in Laryngology and Rhinology is given by clinical lectures at the college by the Professor of the department. The subjects then considered are demonstrated to the fourth-year students by the instructor and by the assistants. The class is divided into sections, and each member is expected to examine patients and perform manipulations. The clinics are fully illustrated by plates and models, and, as far as possible, by clinical material.

### SUMMARY.

	<i>Fourth Year.</i>
Lectures . . . . .	14 hours.
Sections . . . . .	15 hours.

*Text-Book*—Knight, *Diseases of the Nose and Throat.*

*Collateral Reading*—Grünwald, *Atlas of Diseases of the Larynx*; Grünwald, *Atlas of Diseases of the Mouth, Pharynx and Nose.*

## OPHTHALMOLOGY.

CHARLES STEDMAN BULL, M.D., *Professor of Ophthalmology.*

*Clinical Instructors,*

DR. ROBERT G. REESE,

DR. J. HERBERT CLAIBORNE.

Instruction in Ophthalmology consists in lectures at the college building once a week, during the months of October, November, and December, and in sectional teaching two hours a week at the



## CORNELL UNIVERSITY MEDICAL COLLEGE.

college dispensary throughout the year. The weekly lectures at the college are didactic, and consider the subjects of the external or superficial diseases of the eye, the anomalies of the ocular muscles, and the deep lesions of the eye which are not susceptible of clinical demonstration. The sectional teaching at the college dispensary is devoted partly to clinical ophthalmology and the use of the ophthalmoscope, and partly to instruction in the errors of refraction and the rudiments of the fitting of lenses. Thus the entire field of ophthalmology is covered.

### SUMMARY.

	<i>Fourth Year.</i>
Clinics . . . . .	10 hours.
Sections . . . . .	20 hours.

*Text-Book*—Noyes.

*Collateral Reading*—De Schweinitz, Swanzy, Jackson, Nettleship, Berry, May.

## OTOLOGY.

FREDERICK WHITING, M.D., *Professor of Otology.*

*Clinical Instructors,*

DR. GEORGE B. McAULIFFE, DR. WILLIAM S. BRYANT.

*Assistants,*

DR. EARLE CONNER, DR. GEO. W. KUNZ,  
DR. DONALD BARSTOW, DR. H. E. COOK.

During the first third of the fourth year a systematic course of weekly lectures is given. These lectures are practical in character, including a consideration of the anatomy and physiology of the ear and the various methods of examination. Patients are shown to the class in order to familiarize the students with the symptoms and character of the more important diseases.

For clinical instruction in the dispensary, the fourth-year class is divided into sections. Each student receives practical instruction from Professor Whiting and his assistants in the examination of patients, the use of the otoscope, and the various methods of testing the hearing. The student is permitted to examine pa-

## CORNELL UNIVERSITY MEDICAL COLLEGE.

tients and, after a probationary period, to prescribe for them and thus gradually assume the duties of a clinical assistant. The students also have an opportunity of witnessing the more important operations in aural surgery, including intracranial complications at the New York Eye and Ear Infirmary.

### SUMMARY.

	<i>Fourth Year.</i>
Clinics . . . . .	9 hours.
Sections . . . . .	15 hours.

*Text-Book*—Bacon on the Ear.

*Collateral Reading*—Politzer, *Diseases of the Ear*; Macewen, *Pyogenic Infective Diseases of the Brain and Spinal Cord*; Whiting, *The Modern Mastoid Operation*.

## ORTHOPÆDIC SURGERY.

NEWTON M. SHAFFER, M.D., *Professor of Orthopædic Surgery.*

*Clinical Instructors,*

DR. P. HENRY FITZHUGH,      DR. JOHN JOSEPH NUTT.

*Assistants,*

DR. HENRY SCOTT,      DR. DEAS MURPHY,  
DR. PERCY WILLARD ROBERTS.

The course of study in the Orthopædic Department includes a stated clinical lecture once a week, with detailed demonstrations in sectional work twice a week during two months of the year.

During the regular clinical course especial attention is given to the early recognition of the deforming diseases of childhood, also to the symptomatology, pathology, and differential diagnosis of chronic and progressive deformities, including the mechanical and operative treatment.

In detail, the course consists of practical illustrations of methods of treatment, the apparatus used being thoroughly explained both in construction and in principle, attention being

## CORNELL UNIVERSITY MEDICAL COLLEGE.

called to even minute points of construction and use. The operative side is fully dwelt upon, the indications for operative interference as an adjunct to the mechanical work being demonstrated. Ample clinical material is provided, and models of conventional forms of apparatus are placed at the disposal of students.

In the section and laboratory work the student is required to assist in the management of selected cases, to familiarize himself with the various methods of treatment, to construct the simpler forms of apparatus, to secure a practical knowledge of the details of construction of the more complicated instruments, and to familiarize himself with the pathological conditions existing in the deformities of childhood.

### SUMMARY.

	<i>Fourth Year.</i>
Clinics . . . . .	10 hours.
Sections . . . . .	10 hours.

*Text-Book*—Bradford and Lovett.

## DEPARTMENT OF HYGIENE.

Instruction in many of the branches of hygiene and preventive medicine is a prominent feature in some of the courses pursued in the several departments of Chemistry, Bacteriology, Pathology and Medicine.

The topics thus covered include the chemical and bacterial analysis of air, water and milk; the preservation and adulteration of food-stuffs; and the general diagnosis, control and prevention of infectious disease.

The more distinctive branches of hygiene are presented in a course of ten lectures to the fourth-year students. Some of the topics thus considered are the hygiene of dwellings, ventilation, sanitary plumbing, lighting, water supply, disposal of sewage, school hygiene, climatology, epidermiology and municipal sanitation. These lectures are given by the Professors of Chemistry and Pathology and by special lecturers.

*Text-Books*—Egbert, *Hygiene and Sanitation*.

*Collateral Reading*—Notter, *Theory and Practice of Hygiene*.

# SUMMARY OF THE PLAN OF INSTRUCTION.

The right is reserved to make amendments to this curriculum as experience may prove necessary.

The hours stated indicate the number of hours assigned to each student.

The total of hours devoted by each department to instruction is, of course, much in excess of these.

## FIRST YEAR.

### Anatomy.

Lectures, one hour weekly.....	30 hours.
Demonstrations, 1½ hours weekly.....	45 hours.
Recitations, 2 hours weekly.....	60 hours.
Dissection, 12 hours weekly, 16 to 20 weeks..	192 to 240 hours.

### Physiology.

Lectures, 3 hours weekly, half term.....	45 hours.
Laboratory Demonstrations, 1 hour weekly, half term	15 hours.
Recitations, 3 hours weekly, half term.....	45 hours.

### Chemistry.

Recitations, 2 hours weekly.....	60 hours.
Laboratory, 4 hours weekly, 18 weeks.....	72 hours.
Laboratory, 2 hours weekly, 12 weeks.....	24 hours.

### Physics.

Lectures, 3 hours weekly.....	90 hours.
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### Histology.

Laboratory, 4 hours weekly.....	120 hours.
Recitations, 2 hours weekly.....	60 hours.

### Embryology.

Lectures, 1 hour weekly, 15 weeks.....	15 hours.
Laboratory, 2 hours weekly.....	40 hours.

### Electives.

Laboratory Pharmacology.  
Physiological Chemistry.  
Bacteriology.

## CORNELL UNIVERSITY MEDICAL COLLEGE.

These elective courses are open to certain advanced students as described on page 35 of the announcement.

In the course of the session one written review is held in the subjects recited upon. The papers are examined by the professors of the respective branches.

### Anatomy.

#### SECOND YEAR.

Lectures, $2\frac{1}{2}$ hours weekly .....	75 hours.
Demonstration Lectures, 1 hour weekly, 15 weeks..	15 hours.
Demonstrations, $1\frac{1}{2}$ hours weekly, 30 weeks.....	45 hours.
Recitations, 1 hour weekly.....	30 hours.
*Dissection, 10 hours weekly, 8 to 12 weeks ....	80 to 120 hours.

### Physiology.

Lectures, 3 hours weekly, half term.....	45 hours.
Recitations, 4 hours weekly, half term .....	60 hours.
Laboratory Demonstrations, 1 hour weekly.....	30 hours.

### Organic and Physiological Chemistry.

Laboratory, 2 hours weekly, 18 weeks.....	36 hours.
Laboratory, 4 hours weekly, 12 weeks .....	48 hours.
Lectures, 2 hours weekly.....	60 hours.
Recitations, 1 hour weekly .....	30 hours.

### Pharmacology.

Laboratory, 6 hours weekly, 15 weeks.....	90 hours.
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### Bacteriology.

Laboratory, 6 hours weekly, 15 weeks.....	90 hours.
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### Histology.

Laboratory, 2 hours weekly.....	60 hours.
Recitations, 1 hour weekly.....	30 hours.

### Pathology.

Lectures .....	10 hours.
Gross Pathology, 1 hour weekly for 15 weeks.....	15 hours.

### Medicine.

Recitations, 1 hour weekly.....	30 hours.
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\* Total Dissection required, 312 to 320 hours.

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### Surgery.

Recitations, 2 hours weekly..... 60 hours.

### Obstetrics.

Recitations, 1 hour weekly..... 30 hours.

### Electives.

Bacteriology.

Materia Medica Recitations of the Third Year.

Manikin Course in Obstetrics.

Obstetrical Clinic.

The conditions under which certain students may avail themselves of these electives are stated on page 36 of the announcement.

## THIRD YEAR.

### Medicine.

Lectures, 2 hours weekly, 10 weeks..... 20 hours.

Clinics, 1 hour weekly..... 30 hours.

Clinics, 1 hour weekly, 16 weeks..... 16 hours.

Recitations, 2 hours weekly..... 60 hours.

Section Work, 3 hours weekly, 10 weeks..... 30 hours.

Section Work, 1 hour weekly, 5 weeks..... 5 hours.

Section Work, 3 hours weekly, 5 weeks..... 15 hours.

### Surgery.

Lectures, 3 hours weekly, 12 weeks..... 36 hours.

Clinics, 1 hour weekly, 18 weeks..... 18 hours.

Clinics, 1 hour weekly..... 30 hours.

Clinics, 1 hour weekly, 8 weeks..... 8 hours.

Clinics, 1 hour weekly..... 30 hours.

Recitations, 2 hours weekly..... 60 hours.

Section Work, 3 hours weekly, 5 weeks..... 15 hours.

Section Work, 2 hours weekly, 5 weeks..... 10 hours.

### Therapeutics.

Lectures, 1 hour weekly..... 30 hours.

Lectures, 1 hour weekly, 17 weeks..... 17 hours.

Clinics, 1 hour weekly..... 30 hours.

Section Work, 1 hour weekly, 5 weeks..... 5 hours.



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### **Materia Medica.**

Recitations, 2 hours weekly..... 60 hours.

### **Pathology.**

Laboratory, 6 hours weekly.....180 hours.

Recitations, 1 hour weekly..... 30 hours.

### **Gross Pathology.**

Laboratory, 2 hours weekly..... 60 hours.

### **Clinical Pathology.**

Laboratory, 2 hours weekly..... 60 hours.

Recitations, 1 hour weekly, 6 weeks..... 6 hours.

### **Obstetrics.**

Lectures, 1 hour weekly, 30 weeks ..... 30 hours.

Clinics, 1 hour weekly..... 30 hours.

Recitations, 1 hour weekly..... 30 hours.

Section Work (manikin), 3 hours weekly, 5 weeks. 15 hours.

### **Gynæcology.**

Lectures. .... 6 hours.

Clinics, 1 hour weekly..... 30 hours.

### **Toxicology.**

Lectures, 1 hour weekly, 20 weeks..... 20 hours.

### **Diseases of Children.**

Clinics, 1 hour weekly..... 30 hours.

### **Genito-Urinary Surgery.**

Clinics, 1 hour weekly, 18 weeks..... 18 hours.

Section Work, 3 hours weekly, 5 weeks..... 15 hours.

### **Neurology.**

Lectures ..... 5 hours.

Clinics, 1 hour weekly, 20 weeks..... 20 hours.

Section Work, 3 hours weekly, 5 weeks..... 15 hours.

## FOURTH YEAR.

### **Medicine.**

Lectures, 1 hour weekly, 10 weeks ..... 10 hours.

Clinics, 1 hour weekly..... 30 hours.

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Clinics, 1 hour weekly.....	30 hours.
Clinics, 1 hour weekly, 6 weeks.....	6 hours.
Recitations, 1 hour weekly.....	30 hours.
Section Work, 4 hours weekly, 5 weeks.....	20 hours.
Section Work, 1 hour weekly, 5 weeks.....	5 hours.
Section Work, 4 hours weekly, 5 weeks.....	20 hours.
Section Work, 3 hours weekly, 5 weeks.....	15 hours.
Section Work, 2 hours weekly, 4 weeks.....	8 hours.
Section Work, 4 hours weekly, 5 weeks.....	20 hours.

### Surgery.

Lectures, 3 hours, 12 weeks.....	36 hours.
Clinics, 1 hour weekly, 18 weeks.....	18 hours.
Clinics, 1 hour weekly, 8 weeks.....	8 hours.
Clinics, 2 hours weekly.....	60 hours.
Section Work, 1 hour weekly, 5 weeks.....	5 hours.
Section Work, 4 hours weekly, 5 weeks.....	20 hours.
Section Work, 2 hours weekly, 5 weeks.....	10 hours.
Operative Surgery, 6 hours weekly, 5 weeks.....	30 hours.
Recitations, 1 hour weekly.....	30 hours.

### Therapeutics.

Lectures, 1 hour weekly.....	30 hours.
Clinics, 1 hour weekly.....	30 hours.
Recitations, 1 hour weekly.....	30 hours.
Section Work, 1 hour weekly, 5 weeks.....	5 hours.

### Obstetrics.

Lectures, 1 hour weekly, 30 weeks.....	30 hours.
Clinics, 1 hour weekly.....	30 hours.

### Gynæcology.

Lectures, 1 hour weekly, 6 weeks.....	6 hours.
Clinics, 1 hour weekly.....	30 hours.
Section Work, 4 hours weekly, 5 weeks.....	20 hours.
Recitations, 1 hour weekly.....	30 hours.

### Gross Pathology.

Laboratory, 6 hours weekly, 5 weeks.....	30 hours.
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## Diseases of Children.

Clinics, 1 hour weekly.....	30 hours.
Section Work, 2 hours weekly, 5 weeks.....	10 hours.

## Genito-Urinary Surgery.

Lectures .....	6 hours.
Clinics, 1 hour weekly, 18 weeks.....	18 hours.
Section Work, 2 hours weekly, 5 weeks.....	10 hours.

## Neurology.

Clinics, 1 hour weekly, 20 weeks.....	20 hours.
Section Work, 1 hour weekly, 5 weeks.....	5 hours.

## Mental Diseases.

Lectures .....	5 hours.
Sections.....	4 hours.
Clinics .....	14 hours.

## Dermatology.

Section Work, 5 hours weekly, 5 weeks.....	25 hours.
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## Laryngology and Rhinology.

Lectures, 1 hour weekly, 14 weeks.....	14 hours.
Section Work, 3 hours weekly, 5 weeks.....	15 hours.

## Ophthalmology.

Clinics, 1 hour weekly, 10 weeks .....	10 hours.
Section Work, 4 hours weekly, 5 weeks.....	20 hours.

## Otology.

Clinics, 1 hour weekly, 9 weeks.....	9 hours.
Section Work, 3 hours weekly, 5 weeks.....	15 hours.

## Physiology of the Special Senses.

Lectures, 3 hours weekly, 2 weeks.....	6 hours.
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## Orthopædic Surgery.

Clinics, 1 hour weekly, 10 weeks.....	10 hours.
Section Work, 2 hours weekly, 5 weeks.....	10 hours.

## EXAMINATIONS.

### REQUIREMENTS FOR ADVANCEMENT IN COURSE.

Students are advanced in course from one year to the next upon passing examinations in the work of that year, but examinations in major or minor subjects may, at the discretion of the Head of the Department, include all the work previously covered in the year or years preceding the examinations in question. There is, however, no unnecessary repetition of subjects taught from year to year. Students who have not succeeded in passing all their examinations will be allowed to enter upon the next year's studies, provided they pass examinations in the subjects failed in at the beginning of the session.

Examinations for advancement in course, graduation, and admission to advanced standing are held at the close of the year. In each laboratory course extending through a part of the year only, the examination is held at the close of the course.

Examinations for conditioned students and those desiring admission to advanced standing, who have not taken the spring examinations, are held during the week preceding the opening of the college.

The subjects examined upon are divided into major and minor subjects, and a standing of 75 per cent. is required to pass.

The minor subjects embrace laboratory courses and those in which instruction is given by recitations only.

### Subjects of Examination for Admission to the Second Year.

Major Subjects. .Anatomy (except the nervous system, viscera, and organs of special sense).

Physics.

Inorganic Chemistry (including laboratory work).

Physiology (except the nervous system, embryology and organs of special sense).

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Minor Subjects. .Histology (except the nervous system and organs of special sense).

Embryology.

Conditions allowed (at the spring examinations): 1 Major and 1 Minor; or 2 Minor.

NOTE 1. In each of the laboratory courses of the first and subsequent years, students whose marks fall between 60 and 75 per cent. will be allowed one reëxamination within two weeks of the completion of the course, failing in which they must repeat the laboratory course with the next succeeding section.

Students whose marks fall below this percentage in the chemical laboratory cannot be reëxamined, but must repeat the course with the next succeeding section.

NOTE 2. In each of those branches in which recitations are held throughout the year, there shall be a written review conducted by the instructors and supervised by the professor in charge of the department, and also a final written review conducted by the professor himself at the close of the year. The written reviews conducted by the instructors shall be held as soon as possible after the return from the Christmas recess, and shall count as a single recitation, the object being to ascertain the knowledge acquired by the student.

NOTE 3. *All conditions must be successfully passed before entrance into the next succeeding year will be allowed.*

### Subjects of Examination for Admission to the Third Year.

Major Subjects. .Anatomy.

Organic Chemistry.

Physiology.

Minor Subjects.\*Medicine.

\*Surgery.

\*Obstetrics.

Bacteriology.

Normal Histology (central nervous system and organs of special sense).

Pharmacology.

Laboratory Organic Chemistry.

Conditions allowed: 1 Major and 1 Minor; or 2 Minor subjects.

(See Notes 1, 2 and 3 above.)

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\* Students whose recitation marks for the year in medicine, surgery and obstetrics are satisfactory, will be excused from examinations in these subjects at the end of the year.

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### Subjects of Examination for Admission to the Fourth Year.

Major Subjects.. Materia Medica.

Pathology.

Minor Subjects.\*Obstetrics.

\*Medicine.

\*Surgery.

Toxicology.

Clinical Pathology.

\*Pediatrics. } Clinical Paper.

\*Neurology. }

Gross Pathology.

Conditions allowed: 1 Major and 1 Minor; or 2 Minor.

(See Notes 1, 2 and 3, page 83.)

### Subjects of Examination for Graduation at the End of the Fourth Year.

Major Subjects.. Medicine.

Surgery.

Therapeutics.

Obstetrics and Gynecology.

Minor Subjects.. Hygiene.

Ophthalmology.

Neurology.

Laryngology and Rhinology.

Orthopedics.

Pediatrics.

Psychiatry.

Otology.

Dermatology.

Genito-Urinary Diseases.

The examinations in the major subjects are allowed two hours, and in the minor subjects one hour each.

If any student fails to pass in not more than one major, or in two minor subjects, a reëxamination may be allowed within two weeks

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\* Students whose recitation and section marks in these subjects are sufficiently satisfactory will be excused from examinations in these subjects at the end of the year.



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and if the candidate is then successful the degree will be conferred at the later Commencement at Ithaca.

If the candidate fails to pass in any subject at this second examination the work of the fourth year must be repeated.

### REQUIREMENTS FOR GRADUATION.

1. Candidates for the degree of doctor of medicine must have studied medicine for four full years in an accredited medical college, and the fourth year at least must have been spent in the Cornell University Medical College.

2. Candidates must present satisfactory evidence of good moral character and of being not less than twenty-one years of age.

3. Candidates must file with the Secretary of the Faculty the Cornell Regents' medical-student certificate as evidence of having complied with the requirements for admission.

4. Candidates must have dissected at least seven parts in anatomy (see page 41). They must, further, have taken the regular course of two weeks in practical obstetrics, and a certificate covering this course must be filed at the Secretary's office before registration for the final examinations, which begin about the middle of May.

5. In addition to the yearly examinations above specified for advancement in course, candidates must pass at the end of the fourth year examinations in medicine, surgery, therapeutics, obstetrics, and gynecology, and the special branches as are specified on page 84.

6. Candidates rejected at the final examination will not be re-examined until after having repeated their fourth year of study.

Before being readmitted to the fourth year the candidate must pass a satisfactory examination in anatomy, physiology, chemistry and physics, and materia medica.

7. The degree will not be conferred upon any candidate who absents himself from the public Commencement without the special permission of the Faculty.

8. The Faculty reserves the right to terminate the connection of any student with the institution *at any time* on the ground of what they may deem moral or mental unfitness for the profession, or improper conduct while connected with the College.

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### FINAL EXAMINATION IN THE SUBJECTS OF THE FIRST AND SECOND YEARS.

A law passed at the last session of the legislature permits students to take part of their examinations for the license to practice medicine in this State at the end of the second year.

For the full text of the law see page 28, this catalogue.

### REQUIREMENTS FOR LICENSE TO PRACTICE MEDICINE IN THE STATE OF NEW YORK.

*All requirements for admission should be filed at least one week before examination.*—They are as follows:

1. Evidence that applicant is more than twenty-one years of age (Form 1).

2. Certificate of moral character from not less than two physicians in good standing (Form 1).

3. Evidence that applicant has the general education required preliminary to receiving the degree of bachelor or doctor of medicine in this State (medical-student certificate. See examination handbook).

4. Evidence that applicant has studied medicine not less than four full school years of at least nine months each, in four different calendar years, in a medical school registered as maintaining at the time a satisfactory standard. New York medical schools and New York medical students shall not be discriminated against by the registration of any medical school out of the State, whose minimum graduation standard is less than that fixed by statute for New York medical schools.

*First exemption:* "The Regents may in their discretion accept as the equivalent for any part of the third and fourth requirement, evidence of five or more years' practice of medicine, provided that such substitution be specified in the license."

5. Evidence that applicant "has received the degree of bachelor or doctor of medicine from some registered medical school, or a diploma or license conferring full right to practice medicine in some foreign country" (Form 2 of original credentials).

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6. The candidate must pass examinations in anatomy, physiology and hygiene, chemistry, surgery, obstetrics, pathology and diagnosis, therapeutics, practice, and materia medica. The questions "shall be the same for all candidates, except that in therapeutics, practice, and materia medica all the questions submitted to any candidate shall be chosen from those prepared by the board selected by that candidate, and shall be in harmony with the tenets of that school as determined by its State Board of Medical Examiners."

*Second exemption:* "Applicants examined and licensed by other State examining boards registered by the Regents as maintaining standards not lower than those provided by this article, and applicants who matriculated in a New York State medical school before June 5, 1890, and who received the degree of M.D. from a registered medical school before August 1, 1895, may, without further examination, on payment of \$10 to the Regents, and on submitting such evidence as they may require, receive from them an indorsement of their licenses or diplomas, conferring all rights and privileges of a Regents' license issued after examination."

7. A fee of \$25 payable in advance.

### DIPLOMAS OF LICENTIATE OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON AND MEMBERSHIP OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Graduates of the Cornell University Medical College are admitted to the final examination for the diploma of Licentiate of the Royal College of Physicians of London and Membership of the Royal College of Surgeons of England, upon presenting proper certificates that certain conditions applicable to the foreign universities and colleges which are recognized by the examining board have been complied with.

Further information may be obtained from the Secretary of the Board (Mr. F. G. Hallett) at the Examination Hall, Victoria Embankment, London, W. C.

## PRIZES.

In commemoration of John Metcalfe Polk, an Instructor in this College, who graduated from the Medical Department of Cornell University on June 7th, 1899, and died on March 29th, 1904, an

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annual prize of \$500 will be presented at each Commencement to the members of the Graduating Class who have completed the full course of study in Cornell University Medical College.

This prize will be awarded as follows:

To the student having the highest standing . . . . . \$300

To the student having the second highest standing . . . \$125

To the student having the third highest standing . . . \$75

Two prizes, one of \$50, and another of \$25, are offered by Professor Dana to the students of the graduating class, to be designated by him, who make the two best reports of neurological cases.

### HOSPITAL APPOINTMENTS.

The students and graduates of the Cornell University Medical College are entitled to compete on equal terms with those of other colleges for positions on the resident staff of Bellevue and the other hospitals of the city.

Some of these hospitals are: The City, Harlem, Gouverneur, New York, St. Luke's, Presbyterian, St. Vincent's, St. Francis', Mount Sinai, German and Hudson Street hospitals, New York Eye and Ear Infirmary, and the hospitals in Brooklyn and Jersey City, Newark, Paterson, etc.

The requirements, the times of examination, and the period of service differ. The details can be learned by application, written or in person, to the superintendents or to the secretaries of the medical boards of the various hospitals.

### SPECIAL COURSES.

The Medical Department will continue the System of Special Courses which has proved of advantage.

The courses are designed primarily for advanced students or for workers in specialized lines of research or for post graduates. They are scheduled to begin at various times, and to continue about six weeks. These courses include different portions of the subjects of normal histology; clinical, gross, and histological pathology; bacteriology, chemistry, anatomy, and operative surgery.

A pamphlet giving full details can be obtained by application to the Secretary of the College.

## SUGGESTION.

*It would be to the advantage of students if they would register a few days in advance of the opening exercises, secure boarding-places, and purchase books, so that their studies may not be interrupted in the beginning. The Secretary's office is open every day after September, from 10 A.M., to 5 P.M.*

## TEXT-BOOKS.

As a rule, only the latest editions of text-books should be purchased.

*Anatomy*—Text-Book, Gerrish, second edition, \$6.50; Reference Works, Morris, \$6.00; Gray, \$5.50; Quain, \$25.20; Haynes, *Guide to Dissection*, \$0.80; Woolsey, *Surgical Anatomy*, \$5.00; Haynes, *Manual of Anatomy*, \$2.50; Cunningham, *Text-Book of Anatomy*, \$9.00; Toldt, *Atlas of Human Anatomy*, \$18.00.

*Bacteriology*—Muir and Ritchie, *Manual of Bacteriology*, \$3.75.

*Chemistry*—Witthaus, *Manual of Chemistry*, fifth edition, \$3.50; Wolf, *Laboratory Handbook*, \$1.25; Ganot, *Physics*, \$4.00; Riggs, *Laboratory Chemistry*, \$1.00.

*Dermatology*—J. Nevins Hyde, \$4.50; H. Radcliffe Crocker, third edition, \$5.00; H. Stilwagon, \$6.00.

*Diseases of Children*—Williams, *Medical Diseases of Infancy and Childhood*, \$3.50; Starr, *An American Text-book of the Diseases of Children*, \$7.00; Rotch, *Pediatrics*, \$6.00.

*Genito-Urinary*—White and Martin, \$6.00; Hyde and Montgomery, \$4.00; Keyes and Chetwood, \$2.75.

*Gynæcology*—Penrose, \$3.75; Dudley, \$5.00; Garrigues, *Diseases of Women*, \$4.50.

*Histology*—Ferguson, *Text-Book of Histology*, \$4.00; Bohm, Davidoff, and Huber, *Text-Book of Histology*, \$3.50.

*Hygiene*—Egbert, *Hygiene and Sanitation*, \$2.25; Notter, *Theory and Practice of Hygiene*, \$7.00.

*Laryngology and Rhinology*—Knight, *Diseases of the Nose and Throat*, \$3.00; Grünwald, *Atlas of Diseases of the Larynx*, \$2.50; Grünwald, *Atlas of Diseases of the Mouth, Pharynx and Nose*, \$3.00.



## CORNELL UNIVERSITY MEDICAL COLLEGE.

*Materia Medica and Therapeutics*—White and Wilcox, *Materia Medica and Therapeutics*, \$3.00; Coleman, *Syllabus of Materia Medica*, \$1.00; Hare, *Practical Therapeutics*, \$4.00; Thompson, *Practical Dietetics*, \$5.00; Wilson, *American Text-Book of Applied Therapeutics*, \$7.00; Hatcher, *A Text-book of Materia Medica*, \$2.00.

*Medicine*—Tyson, *Physical Diagnosis*, \$1.50; Salinger-Kalteger, *Modern Medicine*, \$4.00; Musser, *Medical Diagnosis*, \$6.00; Thompsons, *Practical Medicine*, \$5.00; for reference, Loomis-Thompson, *American System of Practical Medicine*, \$24.00.

*Mental Diseases*—Dana, *Mental Diseases*, \$5.00; Tuke, *Dictionary of Psychological Medicine*, \$10.00; Hamilton and Godkin, *System of Legal Medicine*, \$10.00.

*Nervous Diseases*—Dana, *Diseases of the Nervous System and Psychiatry*, \$3.50; Gower, *Diseases of the Brain and the Spinal Cord*, \$8.00; Dercum, \$6.00; Obersteiner, *Anatomy of the Nervous System*, \$5.50.

*Obstetrics*—Edgar, *Practice of Obstetrics*, \$6.00.

*Ophthalmology*—Noyes, \$5.00; De Schweinitz, \$4.00; Swanzy, \$2.50; Jackson, \$2.50; Nettleship, \$3.00.

*Orthopædic Surgery*—Bradford and Lovett, \$4.50.

*Otology*—Politzer, *Diseases of the Ear*, \$7.00; Macewen, *Pyrogenic Infective Diseases of the Brain and Spinal Cord*, \$4.00.

*Pathology*—Delafield and Prudden, *Pathological Anatomy and Histology*, \$5.00; Orth, *Pathological Diagnosis* (Trans. of Sydenham Society); Zeigler, *General Pathology*, \$5.00.

*Clinical Diagnosis*—V. Jaksch, \$6.50; Simon, \$4.00; Ewing, *Pathology of the Blood*, \$3.50.

*Physiology*—Flint, *Handbook of Physiology*, fifth edition, 1905; Kirke's *Hand-Book of Physiology*, nineteenth edition; Halliburton, 1901, \$3.00; Stewart, \$3.75; Foster, \$3.60; Schäffer, \$18.00.

*Surgery*—Tillmann, 3 vols., \$15.00; *American Text-Book*, \$7.00; Parks, *Surgery*, \$6.00; Stimson, *Fractures and Dislocations*, \$5.00; Stimson, *Operative Surgery*, \$3.00; Dennis, *System of Surgery*, \$6.00 per volume.

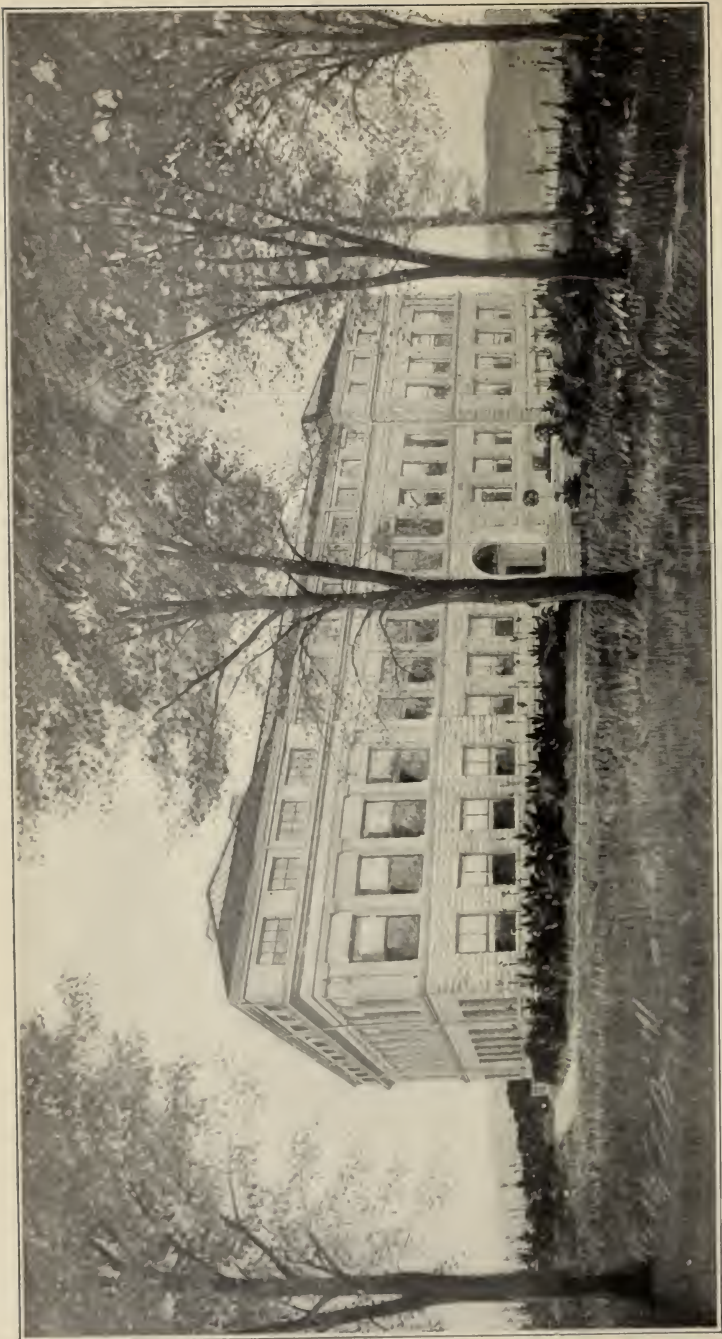
Gould, *Student's Medical Dictionary*, \$2.50.

Dissecting Cases—\$2.00 to \$5.00.

Text-books, etc., may be obtained from the Clerk at the college.



ITHACA DIVISION



STIMSON HALL

## FACULTY OF MEDICINE AT ITHACA.

BURT GREEN WILDER, B.S., M.D.,

*Professor of Neurology, Vertebrate Zoölogy, and Physiology.*

EDWARD LEAMINGTON NICHOLS, B.S., Ph.D.,

*Professor of Physics.*

SIMON HENRY GAGE, B.S.,

*Professor of Histology and Embryology.*

VERANUS ALVA MOORE, B.S., M.D.,

*Professor of Comparative Pathology and Bacteriology.*

LOUIS MUNROE DENNIS, Ph.B., B.S.,

*Professor of Inorganic Chemistry.*

WILLIAM RIDGELY ORNDORFF, A.B., Ph.D.,

*Professor of Organic and Physiological Chemistry.*

ERNEST GEORGE MERRITT, M.E.,

*Professor of Physics.*

ABRAM TUCKER KERR, B.S., M.D.,

*Professor of Anatomy.*

GEORGE SYLVANUS MOLER, A.B., B.M.E.,

*Assistant Professor of Physics.*

BENJAMIN FREEMAN KINGSBURY, Ph.D., M.D.,

*Assistant Professor of Physiology.*

EMILE MONNIN CHAMOT, B.S., Ph.D.,

*Assistant Professor of Sanitary Chemistry and Toxicology.*

JOHN SANDFORD SHEARER, B.S., Ph.D.,

*Assistant Professor of Physics.*

FACULTY OF MEDICINE AT ITHACA.

ERNEST BLAKER, B.S., Ph.D.,

*Assistant Professor of Physics.*

EUGENE BAKER, B.S., M.D.,

*Lecturer on Obstetrics and Practice of Medicine.*

MARTIN BUEL TINKER, B.S., M.D.,

*Lecturer on Surgery.*

SAMUEL HOWARD BURNETT, A.B., M.S., D.V.M.,

*Instructor in Comparative Pathology and Bacteriology.*

HUGH DANIEL REED, B.S.,

*Instructor in Systematic and Economic Zoölogy.*

WILLIAM CROOKS THRO, A.M.,

*Instructor in Histology and Embryology.*

MERVIN TUBMAN SUDLER, Ph.D., M.D.,

*Instructor in Anatomy.*

GERSHOM FRANKLIN WHITE, B.S.,

*Instructor in Pathology and Bacteriology.*

ARTHUR WESLEY BROWNE, M.S., Ph.D.

*Instructor in Chemistry.*

RALPH CUTHBERT SNOWDON, A.B.,

*Instructor in Chemistry.*

ELGIN ANGUS GRAY, B.A., M.B.,

*Instructor in Anatomy.*

OMAR RAY GULLION, A.M.,

*Instructor in Pharmacology and Physiology.*

CASSIUS WAY, B.AGR.,

*Assistant in Bacteriology and Pathology.*

WALTER EDWARDS KING, A.B.,

*Assistant in Bacteriology.*

FACULTY OF MEDICINE AT ITHACA.

SAMUEL GUY WINTER, A.B., A.M.,

*Assistant in Histology and Embryology.*

EFFIE ALBERTA READ, A.B.,

*Assistant in Histology and Embryology.*

ARTHUR MALCOLM BEAN, A.M.,

*Assistant in Neurology, Vertebrate Zoölogy and Physiology.*

RESTON STEVENSON, A.M.,

*Assistant in Chemistry.*

THOMAS G. DELBRIDGE, A.B.,

*Assistant in Chemistry.*

HARRY CLIFFORD LUKE, PH.G.,

*Assistant in Pharmacology.*

FRED HUNTINGTON JENNINGS, A.B.,

*Assistant in Chemistry.*

FRANCIS CRAIG KRAUSKOPF, A.B.,

*Assistant in Chemistry.*

GEORGE COOKE ROBERTSON,

*Assistant in Chemistry.*

NELSON VINTON TAYLOR,

*Assistant in Chemistry.*

WESLEY MANNING BALDWIN,

*Assistant in Anatomy.*

ABRAM T. KERR, B.S., M.D.,

*Secretary of the Faculty at Ithaca,*

# INSTRUCTION AT ITHACA.

## DURING THE FIRST TWO YEARS OF THE COURSE.

### CALENDAR FOR ITHACA.

#### First Term, 1905-1906.

September 26th, Tuesday.—Academic year begins; matriculation of new students; University scholarship examinations begin.

September 27th, Wednesday.—Matriculation of new students.

September 28th, Thursday.—Registration of matriculated students.

September 29th, Friday.—Instruction begins in all departments of the University at Ithaca. President's annual address to students at 12 M.

December 23d, Saturday.—Christmas recess begins.

January 3d, Wednesday.—Work resumed.

January 11th, Tuesday.—Founder's Day.

February 2d, Friday.—First term closes.

#### Second Term.

February 3d, Saturday.—Registration for the second term.

March 24th, Saturday.—Easter recess begins.

April 3d, Tuesday.—Work resumed.

June 14th, Thursday.—Instruction ends.

June 21st, Thursday.—Thirty-sixth annual commencement.

#### General Statement.

When, in 1898, the Medical Department of Cornell University was established in New York City, by action of the Board of Trustees it was resolved that the work of the first two years, consisting as it does mainly of fundamental scientific subjects, should also be given in Ithaca, where the opportunities offered by the long estab-



## CORNELL UNIVERSITY MEDICAL COLLEGE.

lished departments of Botany, Zoölogy, Physics, Chemistry, Physiology, Embryology, and Bacteriology afford unusual advantages for thorough study. The remaining subjects of the first two years were also fully provided for.

Among the facilities of the University of special value to the Medical College may be mentioned the museums of Vertebrate and Invertebrate Zoölogy, including Entomology and Comparative Anatomy, of Agriculture, of Botany, and of Geology. The University library, with its 280,000 bound volumes, 44,000 pamphlets, and 600 current periodicals and transactions, is likewise as freely open to medical students as to other University students.

Through the generosity of the late Dean Sage of Albany, the University has been enabled to erect a building especially designed for anatomy, histology, embryology, and physiology. The building is constructed of Ohio sandstone, similar to the library and law school. The general form is that of an E, 157 feet long and 50 feet wide, with wings 40 feet square.

In the cellar are situated the cold-storage, embalming, and cremating rooms, a large room 40 feet square for aquaria, projection, etc., and store rooms.

In the basement is a room for the ventilating and cold-storage machinery, a recitation room, a large lecture room, and the office of the departments of surgery, medicine and obstetrics, besides the lower part of the large amphitheatre.

On the first floor are located the cloak rooms for men and women, college office, library, faculty room, office and private laboratory of the Professor of Histology, two recitation rooms, upper part of the large amphitheatre, and assembly room.

The second floor is devoted to the departments of histology and physiology, each with a large general laboratory, a research laboratory, preparation rooms, and private laboratories for the staff of instruction.

The third floor consists of the general and special dissecting rooms, study rooms, and amphitheatre, besides rooms for the staff.

The attic is utilized for photography, macerating the skeletons, and for storage.

The greatest pains have been taken for ventilation. The lighting, as shown by the picture, is almost perfect in all the rooms.

## DEPARTMENTS, METHODS, AND FACILITIES.

### ANATOMY.

ABRAM T. KERR, B.S., M.D., *Professor.*

MERVIN T. SUDLER, Ph.D., M.D., *Instructor.*

ELGIN A. GRAY, B.A., M.B., *Instructor.*

—, *Assistant Demonstrator.*

—, *Assistant Demonstrator.*

—, *Assistant Demonstrator.*

WESLEY M. BALDWIN, *Assistant.*

Anatomy is given in both the first and second years. The work consists of dissection, recitations and demonstrations to small sections of the class. Special attention is given to the practical work in the laboratory, all of which is concentrated into the first term, thus enabling the student to devote a large amount of time continuously to the work.

In the first year, thirty-two and a half hours per week are devoted to laboratory work. The class is divided into three groups—one assigned to the dissection of the head and neck, one to the upper extremity, and one to the lower extremity. The students of each group start simultaneously in September to study the bones of their part. Upon completing these, they at once take up the dissection. Upon the satisfactory completion of one part, the bones and dissection of another are taken up in a similar way. The laboratory work is accompanied by frequent recitations and demonstrations to small groups. In the latter part of the term, to prepare the students for Histology and Physiology an elementary course of demonstrations on the thoracic and abdominal viscera is given.

During the second year, first term, twenty-five hours per week are devoted to laboratory work. The student is expected to dissect the thoracic and abdominal viscera and the central nervous system. The work on the viscera is given in the first part of the term. The dissection is accompanied by frequent recitations and demonstrations to small groups. The work on the central nervous system

## CORNELL UNIVERSITY MEDICAL COLLEGE.

is concentrated into the latter part of the term. The laboratory work is accompanied by recitations and demonstrations. The Gross Anatomy is given at the same time as the work in Histology and Embryology, and is followed by the Physiology. The work of the three departments is correlated into one continuous course. In the demonstrations the practical application of Anatomy to Medicine and Surgery is emphasized.

In the second term of the second year there are five demonstrations per week on topographical and regional anatomy given to small sections of the class. In these special dissections will be shown to the students, and their attention called to the practical bearing of Anatomy on Medicine and Surgery.

During the two years the student is required to make at least one complete dissection of the human body. The dissecting material is kept in cold storage so as to be ready for use when needed. In the first year a complete disarticulated skeleton is loaned to each two students. The work is personal and practical, each student being independent of the others, so that those with special training or ability are in no way retarded by the slower members of the class. The students are encouraged to make careful notes and drawings, and to record all variations from their text-book descriptions. For this purpose they are furnished with outline record charts. Clay also is furnished so that the students may model the bones or other parts if they so desire. The Department is well equipped with models and special preparations. These are used in the demonstrations, and are also available for the personal use of the students in the laboratory.

Those who have satisfactorily completed the required work, and others properly qualified, will be given opportunity to do advanced and research work.

**1. Anatomy.**—Laboratory work with section demonstrations and recitations, thirty-two and a half actual hours weekly from September to February. The whole of Course 1 is required of first-year students in Medicine; for students in Arts the course may be divided. Professor Kerr, Instructors Sudler and Gray, Assistant Demonstrators —, — and —.

**2. Anatomy.**—Laboratory work with section demonstrations and recitations, twenty-five actual hours weekly. September to February. Professor Kerr, Instructors Sudler and Gray, Assistant

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Demonstrators —, — and —. The whole of Course 2 is required of second-year students in Medicine; for students in Arts the course may be divided.

**3. Topographical and Regional Anatomy.**—Section demonstrations five hours weekly. February to June. Dr. Sudler. (Required of second-year students in Medicine. Open to those students in Arts who have had Course 1.)

**4. Thoracic and Abdominal Viscera.**—Section demonstrations two and a half hours weekly required of second-year students in Medicine. September to February. Professor Kerr.

**6. Advanced and Research Work.**—Laboratory work, elective, eight or more actual hours per week. Professor Kerr and Instructors.

**8. Structure, Development, and Physiology of the Nervous System and the Organs of Sense.**—Credit, three hours. Second year. Professors Gage, Kerr and Kingsbury.

The course consists of three parts: (A) Gross anatomy with special reference to medicine and surgery, Dr. Kerr; (B) Histology and development, Professor Gage; (C) Physiology, Dr. Kingsbury.

The instruction in each part consists of laboratory work, demonstrations or lectures and recitations. The gross anatomy, histology and development are given together during the latter part of the first term, and are immediately followed by the Physiology in the first part of the second term.

### HISTOLOGY AND EMBRYOLOGY.

SIMON HENRY GAGE, B.S., *Professor.*

WILLIAM CROOKS THRO, A.M., *Instructor.*

EFFIE ALBERTA READ, A.B., *Assistant.*

SAMUEL GUY WINTER, A.M., *Assistant.*

As indicated by the following courses, this department offers elementary and advanced instruction in the theory and use of the microscope and its accessories, in photo-micrography, in vertebrate histology, and vertebrate embryology; and opportunities for research in all of these subjects.

The material equipment consists of a good supply of modern microscopes, while camera-lucidas, polariscopes, micro-spectroscopes,

## CORNELL UNIVERSITY MEDICAL COLLEGE.

photo-micrographic cameras, microtomes and other special apparatus are in sufficient numbers to give each student opportunity for personally learning to use them, and for applying them to any special study in which they are called for. Two projection microscopes are available for class demonstrations and for making the drawings used in wax-plate reconstruction. The collection of histologic and embryologic specimens is extensive and constantly increasing.

The rooms for the use of the department are on the first and second floors of Stimson Hall. They are almost perfectly lighted and consist of a large general laboratory, an advanced laboratory, a preparation room, and two laboratories for the instructing staff, where also special demonstrations of difficult subjects are given to small groups of students.

The aim of the department is to bring the student into direct contact with the truths of nature, and hence, while there are demonstration lectures to give broad and general views, there is a large amount of laboratory work in which the facts are learned at first hand, and the methods and manipulations necessary for acquiring the facts are practised by each student. It is recognized that less ground can be covered in a given time in this way, but it is believed, and experience has confirmed the belief, that the intellectual independence and power to acquire knowledge direct from nature which is gained by this personal work is of far higher value than the facts and theories that might be learned in the same time from books and lectures alone, or from specimens prepared by some other individual.

This lake region with its rich and varied fauna is especially favorable for investigations in the histology and embryology of all the main groups of vertebrates; and the proximity of the abattoirs in the city makes it possible to obtain material for the study of the development of the sheep, cow, and pig. The clinic and veterinary department supply material for the embryology of the cat and dog, so that the opportunities for research upon the development of the domestic animals are excellent. Every encouragement is given for the fullest utilization of these opportunities.

**1. Microscopy, Histology and Embryology.**—Second half-year. Credit, eight University hours. Two demonstration-lectures, W. and F., at five, two recitations and twelve hours of laboratory work



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weekly during the second half-year. Professor Gage, Instructor Thro, and Assistants Read and Winter.

**Microscopy.**—The aim is to give a working knowledge of the theory and use of the microscope and its accessories, methods of mounting microscopical specimens, etc. It serves as a basis for all subsequent work of the department. First two weeks.

**Histology.**—This includes the study of the fine anatomy of man and of the domestic animals, and also the fundamental methods of histologic investigation and demonstration. This work continues seven weeks.

**Embryology.**—This deals with the elements and methods of embryology in the amphibia, in the domestic animals, especially the chick and the pig, and in man. This work continues seven weeks.

**4. Advanced Work in Histology and Embryology.**—Laboratory, eight or more actual hours per week with seminary throughout the year. This course is designed for those preparing theses for the baccalaureate or advanced degrees and for those wishing to undertake special investigations in histology and embryology. Special instruction will be given in the theory and manipulation of the more important and difficult accessories of the microscope, *e.g.*, the micro-spectroscope, the micro-polariscope and the apertometer. The use and application of the projection microscope and of photo-micrographic apparatus will be learned by each student, in abundant practical experiments. Professor Gage and Mr. Thro.

Course 4 is open only to those who have taken Course 1, or its equivalent in some other university. Drawing (Course 12c, in Freehand Drawing, or its equivalent) and a reading knowledge of French and German are indispensable for the most successful work in this course.

Subjects for theses should be decided upon as early as possible so that material in suitable stages of development and physiologic activity may be prepared.

**5. Structure and Physiology of the Cell.**—First half-year. Two lectures per week at hours to be arranged. This course is designed for students of biology and medicine, and gives the fundamental facts and principles relating to cell structure and activity, especially in their bearing on general problems of biology and theories of evolution and heredity. Open to students who



## CORNELL UNIVERSITY MEDICAL COLLEGE.

have had satisfactory courses in zoölogy, botany or physiology, or Course 1. Assistant Professor Kingsbury.

6. **Seminary.**—Hours to be arranged. At the seminary, there will be presented reports of special methods and the results of advanced work. Professor Gage.

7. **Structure, Development, and Physiology of the Nervous System and the Organs of Sense.**—Credit, 3 hours. Second year. Professors Gage, Kerr and Kingsbury.

The course consists of three parts: (a) Gross Anatomy with special reference to medicine and surgery, Dr. Kerr; (b) Histology and Development, Professor Gage; (c) Physiology, Dr. Kingsbury.

The instruction in each part consists of laboratory work, demonstrations or lectures and recitations. The gross anatomy, histology and development are given together during the latter part of the first term and are immediately followed by the physiology in the first part of the second term. Course 1 is required of first-year students; Course 8 of second-year students in Medicine.

NOTE.—For the work of this department the student will find a knowledge of Latin and Greek of the greatest advantage. A year's study of Latin, three to five recitations per week, and of Greek, Goodell's Greek in English, or Coy's Greek for beginners, would represent the minimum amount needed. For all courses, the ability to draw well freehand, and a good reading knowledge of French and German are desirable, and for research work almost indispensable.

## NEUROLOGY.

BURT GREEN WILDER, B.S., M.D., *Professor.*

HUGH DANIEL REED, B.S., Ph.D., *Instructor.*

ARTHUR MALCOLM BEAN, A.M., *Assistant.*

**Neurology, Course 3.**—Second term of the second year. One lecture per week, and one practicum or demonstration. In the lectures are considered (a) the principal modifications of the vertebrate brain: (b) the structure and peculiarities of the human brain: (c) the cerebral fissures as criteria of zoölogic or racial affinity, as indexes of physical or mental quality or power, and as boundaries of the cortical areas. At the practicums repre-

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sentative vertebrate brains are compared; the sheep's brain is dissected and with it are compared the brains of the cat, dog, rabbit and monkey; preserved dissections of the human brain are examined. All specimens are drawn. There is given a demonstration of the methods of removing and preparing the human brain for the elucidation of morphologic points. For the illustration of this course there are numerous diagrams representing actual preparations of the brains of man and other vertebrates. The neurologic division of the museum comprises about 1,500 preparations, distributed as follows, in round numbers: Human adults and children, 420; human embryo, fetal and at birth, 213; apes and monkeys, 282; other mammals, 400; other vertebrates, 185. The members of the class have at all times free access to the lecture room, where are kept standard manuals, treatises and monographs. Opportunities for research are offered. Credit, 2 hours.

For other courses in Neurology, see University Register.

### PHYSIOLOGY.

BENJAMIN FREEMAN KINGSBURY, PH.D., M.D., *Assistant Professor.*

OMAR RAY GULLION, A.M., *Instructor*

——, *Assistant.*

——, *Assistant.*

The work in the Department is carried on by means of lectures, demonstrations, laboratory work and recitations. The laboratory course is intended to introduce the student to methods of laboratory work in Physiology, to have him become acquainted with certain fundamental facts at first hand and to learn to draw conclusions from the facts. The part of Physiology so taken up in the laboratory covers the Physiology of muscle, nerve, heart and circulation, blood (in part), eye and central nervous system. Special stress is laid on the points and apparatus of importance in later clinical work.

The recitations cover the entire field of Physiology. Numerous demonstrations are given in the laboratory and recitations to supplement the lecture-demonstrations and student experiments.

## CORNELL UNIVERSITY MEDICAL COLLEGE.

The lectures are intended to unify the work of the Department.

As occasion demands, quizzes or demonstrations may be substituted for the lectures.

The physiology of the central nervous system and organs of sense is given in the second year, after the student has had preparatory work on the anatomy and histology.

**1. Physiology Lectures.**—Three lectures each week, second half-year. Assistant Professor Kingsbury.

**2. Recitations and Demonstrations in Physiology.**—Three hours each week in assigned sections. Second half-year. Instructors ——— and ———.

**4. Recitations and Demonstrations in Physiology.**—The Digestion, Absorption, Metabolism, Excretion. Two hours each week. Second half-year. In assigned sections. Instructor Gullion.

**5. Physiology Laboratory.**—Eight actual hours each week. Second half-year, in assigned sections. Assistant Professor Kingsbury and Instructors.

**6. Structure and Physiology of the Cell.**—First half-year. Two lectures per week at hours to be arranged. This course is designed for students of biology and medicine, and gives the fundamental facts and principles relating to cell structure and activity, especially in their bearing on the general problems of biology and theories of evolution and heredity. Open to students who have had satisfactory courses in zoölogy, botany or physiology, or Course 1 in Histology and Embryology. Assistant Professor Kingsbury.

**7. Research and Advanced Work in Physiology.**—Eight or more actual hours per week. Assistant Professor Kingsbury.

**8. Structure, Development, and Physiology of the Nervous System and the Organs of Special Sense.**—Credit, 3 hours. Second year. Professors Gage, Kingsbury and Kerr.

The course consists of three parts: (*a*) Gross anatomy with special reference to medicine and surgery, Dr. Kerr; (*b*) Histology and development, Professor Gage; (*c*) Physiology, Dr. Kingsbury.

The instruction in each part consists of laboratory work, demonstrations or lectures, and recitations. The gross anatomy, histology and development are given together during the latter part

## CORNELL UNIVERSITY MEDICAL COLLEGE.

of the first term, and are immediately followed by the physiology in the first part of the second term.

**9. Special Physiology Laboratory.**—Five or more actual hours per week. An arrangement of experiments intended to meet the needs of students of natural science. Assistant Professor Kingsbury and Instructors.

Courses 1, 2 and 5 are required of first-year, and Courses 4 and 8 of second-year students in Medicine.

For courses in Comparative Physiology, see University Register.

### MATERIA MEDICA AND PHARMACOLOGY.

BENJAMIN FREEMAN KINGSBURY, Ph.D., M.D., *Assistant Professor.*

OMAR RAY GULLION, A.M., *Instructor.*

HARRY CLIFF LUKE, Ph.G., *Assistant.*

### PHARMACOLOGY AND MATERIA MEDICA.

The three sides of the subject of Pharmacology are presented in three separate courses, Materia Medica, Pharmacy, and Pharmacology in the narrower sense, or the Physiological Action of Drugs.

The Materia Medica, includes a study of the crude drugs, their source, nature and properties, the pharmaceutical preparations, the forms for administration and prescription-writing. The course in Pharmacy consists of laboratory work in which the student makes pharmaceutical preparations covering the processes for the extraction of crude drugs, and the forms for administration. Although the work is pharmaceutical, the aim of the course is to have the student become familiar at first hand with the composition, chemical and physical properties of the important medicinal preparations and the emphasis is pharmacological. In the laboratory work upon the physiological action of drugs, each student determines the exact action, as far as possible, of the most important drugs on (a) the whole animal, (b), the various organs, (c), the tissues. The more difficult experiments are assigned to groups of students who demonstrate their results to the other members of the class.

The laboratory is well fitted for research work in pharmacology, and all efforts in the direction of advanced work will be encouraged.

## CORNELL UNIVERSITY MEDICAL COLLEGE.

1. **Materia Medica.**—Two demonstrations, lectures, or recitations weekly. Second term. Assistant Professor Kingsbury.

2. **Pharmacy.**—Laboratory work, two hours weekly. In sections. Second term. Assistant Professor Kingsbury and Assistants.

3. **The Physiological Action of Drugs.**—Laboratory with occasional lectures or demonstrations, three hours weekly. First term. Instructor Gullion and Assistant.

4. **Research and Special Pharmacology.**—Laboratory work. This may consist of either (a) selected experiments on the action of drugs, or (b) research work along special lines. Five or more hours per week. Assistant Professor Kingsbury and Instructor Gullion.

For courses in Comparative Materia Medica and Pharmacology, see University Register.

## PHYSICS.

EDWARD LEAMINGTON NICHOLS, B.S., Ph.D., *Professor.*

ERNEST GEORGE MERRITT, M.E., *Professor.*

GEORGE SYLVANUS MOLER, A.B., B.M.E., *Assistant Professor.*

JOHN SANFORD SHEARER, B.S., Ph.D., *Assistant Professor.*

ERNEST BLAKER, B.S., Ph.D., *Assistant Professor.*

The instruction in physics is by means of lectures throughout each half year. In these lectures the general laws of mechanics and heat, electricity and magnetism, and sound and light are presented. The very large collection of lecture-room apparatus possessed by the department makes it possible to give experimental demonstrations of all important phenomena. The arrangements for experimental work are most complete. Ordinary illuminating gas, acetylene, oxygen and hydrogen, compressed air, water and steam, blast and vacuum are within easy reach, and electric currents from alternating and direct current dynamos and from storage batteries are available. A masonry pier  $4 \times 12$  feet permits the use in the lecture room of delicate apparatus that could otherwise be used only in the laboratory. A small turbine on the lecture table furnishes power for a variety of experiments. Lanterns with lime or electric light are always ready for use when they can in any way aid a demonstration.

The required course in physics for medical students consists of



## CORNELL UNIVERSITY MEDICAL COLLEGE.

four lectures a week for one term, and the reading of a text-book. Note-books prepared by members of the class are read and graded at frequent intervals. A longer course, consisting of four lectures a week, four recitations a week throughout the year, and one afternoon in the laboratory for one term, is likewise open to medical students, and all those who can find the time to do so, are urged to take this course in place of the required work mentioned above. It should be chosen in preference to the latter by all who wish to prepare themselves for advanced work in the biological sciences. The lectures in this course are supplemented by thorough drill upon the principles of the science, and this, together with the laboratory practice, affords opportunity for a much more adequate knowledge than can be obtained from any course that consists solely of lectures.

During the second term the department offers a course in practical photography (Physics, 9; 2 hours), consisting of lectures and laboratory practice. This course is open to students of medicine under the conditions stated upon page 160 of the University Register.

**7. Elementary Physics.**—Four lectures weekly, with demonstrations, for one term. Required of first-year students in Medicine. Assistant Professor Shearer.

For additional courses in Physics, see University Register.

## CHEMISTRY.

LOUIS MUNROE DENNIS, Ph.B., B.S.,

*Professor of Inorganic Chemistry.*

WILLIAM RIDGELY ORNDORFF, A.B., Ph.D.,

*Professor of Organic and Physiological Chemistry.*

EMILE MONNIN CHAMOT, B.S., Ph.D.,

*Assistant Professor of Sanitary Chemistry and Toxicology.*

*Instructors in Chemistry.*

ARTHUR WESLEY BROWNE, M.S., Ph.D.

RALPH CUTHBERT SNOWDON, A.B.



## CORNELL UNIVERSITY MEDICAL COLLEGE.

### *Assistants in Chemistry.*

WALTER SCHON LENK, B.S.

RESTON STEVENSON, A.M.

THOMAS G. DELBRIDGE, A.B.

FRED HUNTINGTON JENNINGS, A.B.

FRANCIS CRAIG KRAUSKOPF, A.B.

GEORGE C. ROBERTSON.

NELSON V. TAYLOR.

**Inorganic Chemistry.**—The elements of Inorganic Chemistry are taught by lectures, laboratory work, and recitations. The lectures are profusely illustrated by experiments and lantern projection, and while presenting the fundamental concepts of chemical theory are also largely descriptive in character. Experiments illustrating the principles discussed in the text-book are performed in the laboratory by each student.

**Qualitative Analysis.**—The qualitative analysis begins with the study of such reactions of the commoner elements and their compounds as are used in their detection. This is followed by the practical application of the knowledge thus gained to the analysis of unknown substances, both in the solid form and in solution. The work is accompanied by thorough drill in the writing of chemical equations.

**Organic Chemistry, or the Chemistry of the Compounds of Carbon.**—In this course the study of the typical compounds of carbon, their properties, reactions, and relations to one another, is taken up, especial attention being given to those organic substances that are of physiological importance. The course consists of lectures and recitations, supplemented by frequent written examinations. The lectures are fully illustrated by experiments, specimens of the compounds considered, and charts.

**Toxicology.**—This course is intended to serve as an introduction to the methods employed for the separation and identification of the common poisons, inorganic and organic. Special attention is given to the identification of poisons when present in organic matter, such as animal excretions and tissues, medicines, etc. This course also includes the identity tests for a few synthetic remedies.

**Physiological Chemistry.**—The work in this course comprises the study of the chemistry of the proteids, carbohydrates, and

## CORNELL UNIVERSITY MEDICAL COLLEGE.

fats, and of the compounds found in the animal body which are of physiological and pathological importance. The method of instruction is by lectures, recitations, and laboratory work, with frequent written reviews. In the laboratory the student separates from the various animal fluids and organs the chemical compounds which they contain, studies their properties, reactions, and products of decomposition, and thus familiarizes himself with the methods of isolation and identification of these products.

The above courses in Chemistry are required of all students in medicine. Other advanced courses are open to properly qualified students in medicine, and especial facilities for research work in chemistry are at their disposal.

**1. Introductory Inorganic Chemistry.**—Three lectures, one recitation and five hours of laboratory work, weekly. First half-year. Professor Dennis and Mr. —; Messrs. Snowdon, Stevenson and Shade.

**8. Qualitative Analysis.**—One lecture and five hours of laboratory, weekly. Second half-year till April 23d. Dr. Browne: Messrs. Jennings, Krauskopf, Robertson and Smith.

**68. Toxicology.**—One lecture, and five hours' laboratory work weekly. Second half-year after Easter. Assistant Professor Chamot and Mr. .

**32a. Elementary Organic Chemistry.**—Two hours' lectures and written reviews. First half-year. Professor Orndorff and Mr. Taylor.

**40. Physiological Chemistry.**—Two hours' lectures on recitations and written reviews. Second half-year. Mr. — and Mr. Delbridge.

**41. Physiological Chemistry.**—Seven and one-half hours' laboratory work weekly. Second half-year. Mr. — and Mr. Delbridge.

Courses 1, 8, 68 and 32a are required in the first year and courses 40 and 41 in the second year of the medical course.

For additional courses in Chemistry, see University Register.

BACTERIOLOGY.

VERANUS ALVA MOORE, B.S., M.D., *Professor.*

SAMUEL HOWARD BURNETT, A.B., M.S., D.V.M., *Instructor.*

GERSHOM FRANKLIN WHITE, B.S., *Instructor.*

WINFRED BERDELL MACK, D.V.M., *Assistant.*

CASSIUS WAY, B.AGR., *Assistant.*

The instruction in Bacteriology is given by means of lectures, recitations, and laboratory work. The bacteriological laboratories are well supplied with the best modern apparatus. The student will, under proper supervision, prepare culture media, make cultures, and study the morphology of bacteria in both the fresh (living) condition and in stained cover-glass preparations. In fact, all of the technique necessary for a practical working knowledge in bacteriology will be carefully covered. The more important species of pathogenic bacteria will be studied. The special methods which are necessary for diagnosing such diseases as tuberculosis, anthrax, glanders, and diphtheria will receive careful attention. Disinfection, sterilization, the means by which pathogenic bacteria are disseminated, protective inoculation, and other kindred subjects will be considered.

**43. Bacteriology.**—Two lectures and ten hours' laboratory work each week. Second half-year. Required of second-year medical students. Professor Moore. Instructor White and Dr. Mack.

**44. Research in Bacteriology.**—Laboratory work with lectures and seminary throughout the year. Professor Moore and Mr. White. The course is designed for those wishing to undertake original investigation in Bacteriology preparatory to practical work in bacteriological lines, such as exists in health department laboratories. This course is open to students who have taken Course 43 or its equivalent in some other university. Elementary chemistry and a reading knowledge of French and German are indispensable for successful work in this course.

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## GENERAL PATHOLOGY.

VERANUS ALVA MOORE, B.S., M.D., *Professor.*

SAMUEL HOWARD BURNETT, A.B., M.S., D.V.M., *Instructor.*

GERSHOM FRANKLIN WHITE, B.S., *Instructor.*

WINFRED BERDELL MACK, D.V.M., *Assistant.*

CASSIUS WAY, B.AGR., *Assistant.*

The course in pathology consists of lectures, recitations, and laboratory work in pathological histology. The student will also be given instruction in describing gross pathological specimens, but the major part of the work in the laboratory will consist in studying sections of diseased tissue and making drawings from the same. In this course it is expected that the student will become familiar with the terms used in morbid anatomy, together with a definite knowledge of the more important changes found in inflammation and the various forms of infiltrations and degenerations.

**40. Pathology.**—Two lectures or recitations and six hours' laboratory work each week. First term to Christmas vacation. Professor Moore, Instructors Burnett and White. This course is open to students who have had Course 1 in Microscopy.

**45. Research in Pathology.**—Laboratory work throughout the year. Professor Moore and Instructor Burnett. This course is open to students who have taken Course 40 and have taken or are taking Course 43, or the equivalent in some other university.

## SURGERY.

MARTIN BUEL TINKER, B.S., M.D., *Lecturer on Surgery.*

Four hours weekly, second half year, recitations, demonstrations and occasional lectures. The course is given to small sections, and is intended to familiarize the student with the principles of General Surgery and Surgical Pathology. Demonstrations are used whenever possible in teaching such subjects as Surgical Bacteriology, the histological changes in wound repair and the general principles of diagnosis and treatment of surgical diseases and injuries. Having in mind the present great importance of ability

## CORNELL UNIVERSITY MEDICAL COLLEGE.

to pass examinations as well as with the aim of teaching systematic and concise arrangement and expression, frequent written exercises are given. Recitations are adopted as the principal method of instruction with the belief that for the average student information is best assimilated and retained when acquired by personal effort. Lectures are given whenever they seem likely to be helpful in supplementing other methods of instruction.

**1. Surgery.**—Recitations, demonstrations or lectures. Four class exercises weekly in small sections. Dr. Tinker.

### MEDICINE.

EUGENE BAKER, B.S., M.D., *Lecturer on Medicine.*

No didactic lectures are delivered, their place being taken by recitations from a standard text-book.

**Recitations.**—The study of medicine proper is begun with systematic recitations from *Modern Medicine*, by Salinger and Kaltiger. In these recitations the nomenclature, etiology, pathology, and symptomatology of typical cases of diseases are considered, the question of treatment not being taken up until the Junior year in New York.

**1. Medicine.**—Two recitations weekly. Second half-year. Required of second-year students in medicine. Dr. Baker.

### OBSTETRICS.

EUGENE BAKER, B.S., M.D., *Lecturer on Obstetrics.*

Instruction in obstetrics consists mainly of recitations from a standard text-book, these recitations covering the anatomy of the internal genitalia and pelvis, ovulation, menstruation, signs of pregnancy, the physiology, mechanism, and clinical course of normal labor, and the care of mother and child during the puerperium. Whenever necessary, these recitations will be illustrated by plates, casts, and demonstrations upon the obstetric manikin, etc.

**1. Obstetrics.**—Two recitations week'y. Second half-year. Required of second-year students in medicine. Dr. Baker.



# SCHEDULE AND SUMMARIZED STATEMENT.

In this schedule the Counts or University hours are given on the following basis: One recitation or lecture weekly for one term or half-year gives a credit of one; for laboratory work it requires two and one-half actual hours weekly for a term or half a year to secure a credit of one. In the courses of instruction following the schedule, the actual time required each week of the student at lectures, recitations, and laboratory work is stated.

## SCHEDULE OF REQUIRED COURSES.

### *First Year.*

#### FIRST TERM.

<i>Subject.</i>	<i>No. of Course.</i>	<i>Hours of Credit.</i>	<i>Actual Hours per Week.</i>
Anatomy . . . . .	1	13	32 1/2
Chemistry . . . . .	1	6	9
Physics . . . . .	7	4	2

#### SECOND TERM.

Histology . . . . .	1	8	16
Physiology Lectures . . . . .	1	3	3
Physiology Recitations . . . . .	2	3	3
Physiology Laboratory . . . . .	5	3	8
Qual. Chem. Anal. . . . .	8	2	} 6
Toxicology . . . . .	68	1	
Organic Chemistry . . . . .	32a	2	2

### *Second Year.*

#### FIRST TERM.

Anatomy . . . . .	2	9	22 1/2
Anatomy . . . . .	4	1	2 1/2
Physiological Chemistry . . . . .	40	2	2
Physiological Chemistry Lab. . . . .	41	3	8
Pathology . . . . .	40	3	8
Physiological Action of Drugs . . . . .	3	1	3
Nervous System, Structure and Development . . . . .	8	2	5



# CORNELL UNIVERSITY MEDICAL COLLEGE.

## SECOND TERM.

<i>Subject.</i>	<i>No. of Course.</i>	<i>Hours of Credit.</i>	<i>Actual Hours per Week.</i>
Nervous System, Physiology . . .	8	1	1
Physiology Recitations . . .	4	2	2
Neurology . . . . .	3	2	2½
Anatomy . . . . .	3	1	2½
Bacteriology . . . . .	43	6	32
Materia Medica . . . . .	1	2	6
Pharmacy . . . . .	2	1	2
Medicine . . . . .	9	2	2
Surgery . . . . .	10	4	4
Obstetrics . . . . .	11	2	2

*Junior Year.*—For subjects, see pages 78 and 79, as given in New York City.

*Senior Year.*—For subjects, see pages 79 to 81, as given in New York City.

## SUMMARY OF REQUIRED COURSES.

### FIRST YEAR.

**1. Anatomy.**—Laboratory work with section demonstrations and recitations, thirty-two and a half actual hours weekly. First half-year. Professor Kerr, Instructors Sudler and Gray, Assistant Demonstrators —, — and —.

**1. Introductory Inorganic Chemistry.**—Three lectures, one recitation, and five hours of laboratory work weekly. First half-year. Professor Dennis and Mr. Snowden; Messrs. Stevenson and —.

**7. Elementary Physics.**—Four lectures, with demonstrations, weekly, first half the year. Assistant Professor Shearer.

**1. Microscopy, Histology, and Embryology.**—Second half-year. Credit, 8 University hours. Two demonstration lectures, two recitations, and twelve hours of laboratory work weekly during the second half-year. Professor Gage, Instructor Thro, and Assistants Read and Winter.

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1. **Physiology Lectures.**—Three lectures each week. Second half-year. Assistant Professor Kingsbury.

2. **Physiology Recitations and Demonstrations.**—Three hours each week, in assigned sections. Assistant ——— and ———.

5. **Physiological Laboratory.**—Eight hours each week. Second half-year. In assigned sections. Assistant Professor Kingsbury and Instructors.

8. **Qualitative Analysis.**—One lecture and five hours of laboratory weekly. Second half-year till Easter. Dr. Browne: Messrs. Jennings, Krauskopf, Robertson and ———.

68. **Toxicology.**—One lecture and five hours' laboratory work weekly. Second half-year after Easter. Assistant Professor Chamot and Mr. ———.

32a. **Elementary Organic Chemistry.**—Two lectures weekly. First half-year. Professor Orndoff and Mr. Taylor.

### SECOND YEAR.

2. **Anatomy.**—Laboratory work with section practicums and recitations twenty-five actual hours weekly. First half-year. Professor Kerr, Instructors Sudler and Gray, Assistant Demonstrators ———, ——— and ———.

4. **Anatomy, Thoracic, and Abdominal Viscera.**—Section demonstrations two and a half hours weekly. First half-year. Professor Kerr.

40. **Physiological Chemistry.**—Two lectures or recitations weekly. First half-year. Mr. ——— and Mr. Delbridge.

41. **Physiological Chemistry Laboratory.**—Seven and a half hours' laboratory work weekly. First half-year. Mr. Partridge and Mr. Delbridge.

40. **Pathology.**—Two lectures or recitations and six hours' laboratory work each week. First term to Christmas vacation. Professor Moore, and Instructors Burnett and White.

3. **The Physiological Action of Drugs.**—Laboratory with occasional lectures or demonstrations, three hours weekly. First term. Instructor Gullion and Assistant.

8. **Structure, Development, and Physiology of the Nervous**

**System and Organs of Sense.**—Credit, 3 hours. Second year. The gross anatomy, histology, and development are given together during the latter part of the first term, and are immediately followed by the physiology in the first part of the second term. Professors Gage, Kingsbury and Kerr.

**4. Physiology, Recitations and Demonstrations.**—Digestion, Absorption, Metabolism and Excretion. Two hours a week. Second half-year. In assigned sections. Instructor —.

**3. Neurology.**—One lecture and one practicum or demonstration weekly. Second half-year. Professor Wilder and Mr. Bean.

**3. Topographical and Regional Anatomy.**—Section demonstrations two and a half hours weekly. February to June. Dr. Sudler.

**43. Bacteriology.**—Two lectures and ten hours' laboratory work each week. Second half-year. Professor Moore; Instructor White and Dr. Mack.

**1. Materia Medica.**—Two demonstrations, lectures, or recitations weekly. Second term. Assistant Professor Kingsbury.

**2. Pharmacy.**—Laboratory work, two hours weekly. In sections. Second term. Assistant Professor Kingsbury and Assistants.

**1. Medicine.**—Two recitations weekly. Second half-year. Dr. Baker.

**1. Surgery.**—Recitations, demonstrations, or lectures. Four hours in small sections. Second half-year. Dr. Tinker.

**1. Obstetrics.**—Two recitations weekly. Second half-year. Dr. Baker.

## THE A.B. AND M.D. DEGREES.

As a liberal education in the Arts and Sciences is of great advantage to students of Medicine, all who can are urged to precede their medical studies by a college course. A student who takes the academic work in the College of Arts and Sciences of Cornell University will be permitted to elect, as the Fourth Year of his A.B. Course, a year's work in the Medical College. He may then take his fifth year of work—the second of the medical course—either in Ithaca or New York, but he must take the last two years of the medical course in New York. In this way he will obtain the A.B. degree at the end of four years and the M.D. at the end of seven years of study. This is possible, because the first two years of the medical course in New York are offered in duplicate at the University in Ithaca.

### RECOMMENDED COURSE IN ARTS FOR MEDICAL STUDENTS.

The work in the College of Arts and Sciences is all elective. The Medical Faculty, however, recommends that students who intend to take the work in the Medical College should elect the following curriculum:

#### FIRST YEAR — ARTS.

<i>Subject.</i>	<i>Course No.</i>	<i>1st Term Hours.</i>	<i>2nd Term Hours.</i>
English,	1	3	3
*French or German,	1	3	3
*Mathematics,	6	3	3
Chemistry.	1	6	
Chemistry,	8		2
Invert, Zoölogy,	1	2	
Vert. Zoölogy,	2	2	
Invertebrate Zoölogy,	3		3
Comp. Anatomy,	5		3
		—	—
		19	17

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## SECOND YEAR — ARTS.

<i>Subject.</i>	<i>Course No.</i>	<i>1st Term Hours.</i>	<i>2nd Term Hours.</i>
English,	2 or 3	3	3
*French or German,	2 or 2b	3	3
Physics,	2	5	5
Philosophy	1	3	3
Botany	1 and 2	3	3
		—	—
		17	17

## THIRD YEAR — ARTS.

Organic Chemistry,	30	6	6
Philanthropy	55	2	2
El. Social Economics	41	2	2
Systematic Vert. Zoölogy,	6	3	3
Psychology,	2	3	3
Neurology,	3		2
		—	—
		16	18

## FOURTH YEAR, ARTS.

### FIRST YEAR — MEDICAL.

Anatomy,	1	13	
Physiological Chemistry,	40 and 41	5	
Histology,	1		8
Physiology, Laboratory,	5		3
Physiology, Recitations,	2		3
Toxicology,	68		1
		—	—
		18	18

Students who have taken the above course and received the A.B. degree will then take the work of the 2nd, 3rd, and 4th years in the Medical College.

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\* Those students who at entrance offer one modern language should elect the other. Those who offer French and German and Mathematics should elect other subjects in place of this work.

## CORNELL UNIVERSITY MEDICAL COLLEGE.

The Secretary of the Medical College will be glad to confer with students in the College of Arts and Sciences, who later expect to enter the Medical College.

He will be especially glad to consult with those students who wish to modify the above curriculum.

### OPTIONAL FIVE YEAR MEDICAL COURSE.

FOR STUDENTS WHO HAVE SATISFIED THE A.B. ENTRANCE REQUIREMENTS.

All who can do so are urged to take the seven year Arts-Medical Course outlined above and thus secure the two degrees, A.B. and M.D. For those who cannot afford the time for that course the Medical Faculty have provided an optional five years Medical Course outlined below.

#### FIRST YEAR.

<i>Subject.</i>	<i>Course No.</i>	<i>1st Term Hours.</i>	<i>2nd Term Hours.</i>
Chemistry,	1	6	
Chemistry,	8		2
Chemistry, Toxicology,	68		1
Chemistry, Organic,	32a		2
Physics,	2	5	5
Zoölogy, Invertebrate,	1	2	
Zoölogy, Vertebrate,	2	2	
Invertebrate Zoölogy,	3		3
Comp. Anatomy,	5		3
Botany,	1	3	1
Psychology,	1	2	
Neurology,	3		2
		<hr/>	<hr/>
		20	19



# CORNELL UNIVERSITY MEDICAL COLLEGE.

## SECOND YEAR.

<i>Subject.</i>	<i>Course No.</i>	<i>1st Term Hours.</i>	<i>2nd Term Hours.</i>
Anatomy,	1	13	
Physiological Chemistry,	40	2	
Physiological Chemistry,	41	3	
Histology,	1		8
Physiology Recitations,	2		3
Physiology Lectures,	1		3
Physiology Laboratory,	5		3
El. Social Economics,	41	2	2
		—	—
		20	19

## THIRD YEAR.

Anatomy,	2	9	
Anatomy,	4	1	
Pathology,	40	3	
Nervous System,	8	2	1
Physiology Recitations,	4		2
Anatomy,	3		2
Bacteriology,	43		6
Materia Medica,	1		2
Medicine,	1		2
Surgery,	1		4
Obstetrics,	1		2
Advanced Work,		4	
		—	—
		20	20

Upon completing the above work the student will take the regular 3rd and 4th Year's work in New York City. Those students who for any reason wish to modify the work of the first year should consult the Secretary of the Medical College.

## REQUIREMENTS FOR ADMISSION.

For admission to the regular four years course in the Ithaca division of the Cornell University Medical College a Cornell Medical Student

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Certificate, issued by the Regents of the State of New York, and based upon 48 counts including first year English, second year English, American History and Civil Government, Plane Geometry, Elementary Algebra, first year Latin, and second year Latin. (For second year Latin, the candidate may offer any one of the following, Caesar, Nepos, first year Spanish, first year German, or first year French.)

A medical student's certificate is granted by the Regents for 48 counts, as a result of Regent's examination or on evidence of four years of satisfactory high school work or its equivalent. The medical student's certificate offered for entrance to Cornell University must bear upon its face the above required subjects or the candidate must pass corresponding entrance examinations in those required subjects which are not covered by the certificate. The credentials should be sent directly to the Regent's Office, Albany, N. Y., and application made for a medical student's certificate. This certificate should then be submitted to the Registrar for entrance to the medical course at Ithaca.

(For further details in regard to entrance see pages 22-23.) No student is admitted except at the beginning of the college year in September.

For admission to the FIVE YEAR MEDICAL COURSE and to the COLLEGE OF ARTS AND SCIENCES the following subjects are required.

English, History, Plane Geometry, Elementary Algebra, and any *one* of the *three* following groups, A, B, or C:

(A) Latin Grammar, Caesar, Latin Composition, Cicero, Virgil, Greek Grammar, Xenophon, Greek Composition, and Homer.

(B) Latin Grammar, Caesar, Latin Composition, Cicero, Virgil, and *either* Advanced French or Advanced German.

(C) Advanced French, Advanced German, Solid Geometry, Advanced Algebra, and Plane and Spherical Trigonometry.

*One* of the following entrance subjects, Physics, Chemistry, Geology, Botany, or Zoölogy may be offered in place of advanced Mathematics.

The Medical Faculty recommend that the students enter in Group C in preference to A or B.

For further information concerning entrance requirements, Regents credentials, or school certificates apply to David F. Hoy, Registrar, Cornell University, Ithaca, N. Y.

Students entering the five year medical course and students in the

## CORNELL UNIVERSITY MEDICAL COLLEGE.

College of Arts and Sciences should consult the Secretary of the Medical College in regard to their Medical Students' Certificate.

### RESIDENCE AND REGISTRATION.

The college year is nine months long, extending from the last of September till about the middle of June, and is divided into two nearly equal terms. (For exact dates, see calendar on page 95.)

Residence in Ithaca is required of all students. For leave of absence during the session, application should be made to the Secretary, Dr. Kerr.

At the beginning of the term (September 26-28, 1905, and February 3, 1906) students must register with the University Registrar, Room 9A, Morrill Hall. After registration with the University Registrar, they must register with the Secretary of the Medical College, Dr. Kerr, in Stimson Hall.

### SCHOLARSHIPS. (See page 3.)

### EXAMINATIONS.

Students are advanced in course from one year to the next upon passing examinations upon the work of that year. As in the Academic Department, the work of each year is considered final of itself. There is no unnecessary repetition of subjects taught from year to year. According to the usage of the other departments the University student found to be markedly deficient will be dropped from the college.

### ADVANCEMENT FROM SECOND TO THIRD YEAR.

Upon the completion of the two years in Ithaca, the student must obtain from the Faculty a statement of all the work which he has done; and accompanying this statement must be a recommendation that he be allowed to register in the New York division. As a student is not advanced from one year to another in the New York division until all the work of the year is completed, a

## CORNELL UNIVERSITY MEDICAL COLLEGE.

student from Ithaca cannot enter the third-year class in New York until the entire schedule of the first two years has been successfully completed. For removing any conditions, examinations are held at the beginning of the fall term, both in Ithaca and in New York City. The student is at liberty to take these examinations in Ithaca or in New York City. The examination on a subject in either place is final for that year. That is, the student will not be permitted to try an examination on a subject in Ithaca, and take advantage of the later date for the examination in New York to have a second examination on the same subject in the same autumn.

If a student is deficient in two or more subjects there is no objection to his taking the examination in one or more subjects in Ithaca, and the remaining ones in New York, the same autumn.

### MEDICAL SOCIETY.

The Cornell Medical Society is a student organization. At the meetings, papers prepared by the members are read, followed by general discussion. The aim is to give mutual aid in gaining general and special medical knowledge, facility in conducting the exercises of the meetings, and in presenting papers and discussions in a clear and forcible manner before an audience.

### CHARGES FOR INSTRUCTION.

#### FIRST YEAR.

Tuition . . . . .	\$150
Laboratory Fees and Deposit . . . . .	\$56

#### SECOND YEAR.

Tuition . . . . .	\$150
Laboratory Fees and Deposit . . . . .	\$49

### BOARD AND ROOMS.

The cost of living in Ithaca, including board, room, fuel, and lights, varies from \$4 to \$10 per week. By the formation of

## *CORNELL UNIVERSITY MEDICAL COLLEGE.*

clubs, students are sometimes able to reduce their expenses to \$3.50 per week for room and board, and occasionally to even less than that amount.

The cost for board, rent of furnished room, fuel and lights, in Sage College and Sage College Cottage, which are exclusively for women, varies from \$5 to \$6.50 a week. A student occupying alone one of the best rooms pays \$6.50 a week. If two occupy such a room together, the price is \$5.75. Those occupying less desirable rooms, with two in a room, pay \$5 a week each. Both buildings are warmed by steam, lighted by electricity, and, in most cases, the sleeping apartment is separated from the study.

Letters of inquiry in regard to board and rooms at the Sage College and the Cottage should be addressed to Mr. G. F. Foote, Business Manager of Sage College, Ithaca, N. Y.

# MATRICULANTS IN NEW YORK CITY.

1904-5.

Almgren, Ebba Elizabeth.....	Stockholm, Sweden.
Anderson, Victor William.....	New York City.
Andrews, Harry Isaac, Jr.....	Ithaca, N. Y.
Arnold, Edward August.....	New York City.
Aronson, Harry.....	Brooklyn, N. Y.
Arosemena, Charles.....	Guayaquil, Ecuador
Avery, Harry Bain.....	West Taghanic, N. Y.
Ayer, Ira, M.D.....	Brooklyn, N. Y.
Ayers, Horace Ernest.....	New York City.
Baird, Alvin Walter, A.B.....	Portland, Ore.
Baker, Augustus Lynn Landon.....	Ledgewood, N. J.
Baldwin, Francis William.....	New York City.
Barkhorn, Henry Charles.....	Newark, N. J.
Barnes, Harry Lee, M.D.....	Adams, Mass.
Barsky, Michael Halpern.....	New York City.
Baxter, Milton Edwin.....	Elizabeth, N. J.
Beckary, Albert, Ph.G.....	New York City.
Becker, Damas Brough.....	West Berne, N. Y.
Bedford, Alletta Langdon, A.B.....	Haddonfield, N. J.
Bell, Albert Mortimer.....	Glen Head, N. Y.
Bell, Alfred Augustus.....	Morristown, N. J.
Benedict, Albert Newell.....	Yonkers, N. Y.
Bennett, Alice, M.D., Ph.D.....	Wrentham, Mass.
Berliner, Leopold Henry.....	New York City.
Block, Alexander.....	New York City.
Blum, Charlotte.....	New York City.
Boxmeyer, Charles Herbert, A.B.....	Holden, Mo.
Bozenhardt, William Frederick.....	New York City.
Brendler, Charles.....	New York City.
Broder, Charles.....	New York City.
Brooks, Nathaniel Preston, A.B.....	Charlestown, N. H.
Brown, Aaron.....	New York City.
Bryant, Frank Alva Mitchell.....	New York City.
Bunker, Charles Waite Orville, B.Sc.....	Hebron, Neb.
Butclunan, Abraham.....	New York City.
Cahill, Francis Joseph, A.B.....	Hoosick Falls, N. Y.
Caldwell, Isabel, A.B.....	Brooklyn, N. Y.
Castellucci, Fred Adolph.....	New York City.
Chace, Archibald Eastwood, A.B.....	Far Hills, N. J.
Chapman, Louis Ballatine.....	Hartford, Conn.
Chapman, Milton.....	Gasport, N. Y.



# CORNELL UNIVERSITY MEDICAL COLLEGE.

Child, Frank Samuel, Jr., Ph.B.....	Fairfield, Conn.
Clark, Zella Maria, B.A.....	Bay View, P. E. I.
Cocke, Charles Hartwell, B.A.....	Columbus, Miss.
Coffin, Ernest Linwood.....	Ashland, Maine.
Cohen, Harry.....	New York City.
Cohen, Henry Julius.....	New York City.
Cohen, Rose.....	New York City.
Cohn, Mark.....	New York City.
Cook, Leland Howard Dudley.....	Newfield, N. Y.
Coops, Frank Harvey, M.D.....	Danielson, Conn.
Cosgrove, Samuel Allison.....	Jersey City, N. J.
Coyle, James Francis.....	New York City.
Crudden, Francis.....	New York City.
Cuddeback, Edgar Gordon, A.B.....	Port Jervis, N. Y.
Cudmore, John Homer.....	New York City.
Darboid, Edmund Otto.....	West Hoboken, N. J.
Darrow, Fred L.....	New York City.
Davidson, Benjamin.....	Brooklyn, N. Y.
D'Avignon, Francis Joseph.....	Au Sable Forks, N. Y.
Davis, Charles Roy, A.B.....	Pine Bluff, Arkansas.
Davis, Elbert Rice.....	Rushford, N. Y.
Davis, Thomas George.....	New York City.
Dennis, Nina A., A.B.....	Binghamton, N. Y.
De Varona, Joseph Leo.....	New York City.
DeWolf, Harold.....	Bristol, N. Y.
Di Rocco, Joseph.....	New York City.
Donahue, William James Aloysius, A.B.....	Newark, N. J.
D'Oronzio, Joseph Bonora.....	New York City.
Drake, Bertrand Francis, B.S.....	St. Louis, Mo.
DuBois, Leo Charles.....	Newburgh, N. Y.
Dukarevitz, Louis.....	Brooklyn, N. Y.
Dunning, Mary Ella, M.D.....	Newburgh, N. Y.
Eggleston, Cary.....	New York City.
Ehrlich, Simon David.....	New York City.
Eichel, Henry.....	New York City.
Eisenberg, David.....	Long Island City, N. Y.
Eisenbud, Adolph.....	New York City.
Eliasberg, Bernard.....	New York City.
Engel, Irving Harold.....	New York City.
Engel, Joseph.....	New York City.
Engelmann, B. A., M.D.....	Chicago, Ill.
Fancher, Eliza A.....	Albion, N. Y.
Fanoni, Antonio, M.D.....	New York City.
Farkas, Morris.....	New York City.
Farnell, Frederic James.....	Providence, R. I.
Feldman, Isidor.....	New York City.
Fischbein, Elias.....	New York City.
Fox, Frank William.....	Bayonne, N. J.
Frank, Philip.....	New York City.

# CORNELL UNIVERSITY MEDICAL COLLEGE.

Friedman, Edward Louis.....	New York City.
Frink, Horace Westlake.....	Hillsdale, N. Y.
Gannon, John Francis, A.B.....	Providence, R. I.
Garbat, Abraham Leon.....	New York City.
Gelser, George Merrill, A.B.....	Ebenezer, N. Y.
Genung, Lewell T., A.B.....	Binghamton, N. Y.
Ginsburg, Benjamin.....	New York City.
Goehle, Otto Louis, A.B.....	Buffalo, N. Y.
Goldblatt, Louis Leo.....	New York City.
Golding, Harry Newport.....	Paterson, N. J.
Good, Eugene J.....	New York City.
Goodfried, Joseph.....	New York City.
Goodwin, Frank Perry.....	Jamestown, N. Y.
Gootenberg, David.....	New York City.
Gordon, Charles Albert.....	Brooklyn, N. Y.
Gordon, Moses Burns.....	New York City.
Graham, Edwin Merrill.....	New York City.
Grimley, John Goodwin Joseph.....	New York City.
Groesbeck, Harvey Patterson.....	Hoosick Falls, N. Y.
Gurtov, Jacob.....	New York City.
Halpin, Leo Aloysius.....	New York City.
Hammond, Robert Bertine.....	So. Millbrook, N. Y.
Hanley, John Patrick.....	Stafford Springs, Conn.
Harnden, Frank.....	Brooklyn, N. Y.
Harris, Leon.....	Brooklyn, N. Y.
Heim, John Alfred.....	New York City.
Heinick, Fritz Robert Theodor.....	New York City.
Herrick, John Rutherford, B.A.....	Peekskill, N. Y.
Hillenbrand, Frederick Lewis.....	New York City.
Hills, Rollin.....	Brooklyn, N. Y.
Hinz, William.....	New York City.
Hoag, Arthur Edmond.....	Millerton, N. Y.
Hoenig, Edward.....	New York City.
Hoffman, Florentine Milton.....	New Brunswick, N. J.
Hoffman, Richard.....	New York City.
Hofler, Leonard Franklin.....	Brooklyn, N. Y.
Hollander, Samuel.....	New York City.
Hoobler, Bert Raymond, B.S.....	Saginaw, Mich.
Hopkins, Richard Thomas.....	Flushing, N. Y.
Horstman, August George.....	Brooklyn, N. Y.
Horwitt, Solomon.....	New York City.
Howe, Arthur John Perry.....	Upper Montclair, N. J.
Hubbell, Hiram Gaylord.....	Stamford, N. Y.
Hutton, Robert Leroy, A.B.....	Ridgewood, N. J.
Isaacs, Harry Ezekiel.....	W. Hoboken, N. J.
Isralowitz, Otto.....	Newark, N. J.
Jablons, Benjamin.....	New York City.
Johnson, Milton John.....	Jamestown, N. Y.
Jones, Charles Emerson, Jr.....	Hartford, Conn.

# CORNELL UNIVERSITY MEDICAL COLLEGE.

Joseph, David.....	New York City.
Joshi, Lemuel Lucas, B.Sc.....	Bombay, India.
Kanouse, George Edward.....	Hackettstown, N. J.
Kaufhold, Frank.....	Newark, N. J.
Kearns, Thomas Joseph, B.A.....	Brooklyn, N. Y.
Keil, Frank Conrad.....	New York City.
Kemp, Maurice.....	Catasqua, Pa.
Kerr, William Murray.....	New York City.
Kettle, William Walter.....	New York City.
Kice, Luther Holden.....	Wharton, N. J.
Kipp, Ralph.....	Lexington, N. Y.
Kissel, Jacob.....	Brooklyn, N. Y.
Klein, Morris James.....	New York City.
Koehler, Charles George, Jr., A.B.....	Brooklyn, N. Y.
Kresky, Henry.....	Brooklyn, N. Y.
Krugler, Wallace.....	Jersey City, N. J.
Laird, Ida Marie, A.B.....	Auburn, N. Y.
Lampert, Milton Albert.....	New York City.
Landesman, Harry.....	New York City.
Lehman, Max.....	Brooklyn, N. Y.
Levin, Samuel.....	New York City.
Liddle, Herbert James, M.D.....	New York City.
Liebling, Philip.....	New York City.
Lintz, William.....	New York City.
Lipshitz, Mark.....	New York City.
Loeber, Edith, A.B.....	New Orleans, La.
London, Julius.....	New York City.
Lowthian, Walter Edward.....	New York City.
Lynch, George Michael.....	Andover, N. Y.
McGlade, John Joseph.....	New York City.
McGrath, John Francis.....	Holyoke, Mass.
MacGregor, Herbert Paterson.....	New York City.
MacKellar, James Malcolm.....	Nyack, N. Y.
McLaren, Walter Austin.....	Brooklyn, N. Y.
McMahon, Edward Augustine.....	New York City.
McMurtrie, William Anderson.....	Belvidere, N. J.
McNe vins, John Alphonsus.....	New York City.
MacRae, Tom.....	New York City.
Magid, Maurice Oliver.....	New York City.
Mallon, Richard Sanford.....	Paterson, N. J.
Mann, Charles Maitland, A.B.....	New York City.
Mansfield, Edward Raymond, B.S.....	Orono, Me.
Manulkin, George.....	Brooklyn, N. Y.
Marinaro, Frank Xavier.....	New York City.
Markey, Edward Bond.....	Eaton, Ohio.
Marschark, Max.....	New York City.
Martin, Arthur Harold, A.B.....	Cooperstown, N. Y.
Maybaum, Jacob.....	New York City.
Mendalis, Morris.....	Brooklyn, N. Y.

# CORNELL UNIVERSITY MEDICAL COLLEGE.

Messersmith, Wesley Martin.....	Plainfield, N. J.
Meyer, Henry Edward Berthold.....	Brooklyn, N. Y.
Minard, Edward Le Roy.....	Boonton, N. Y.
Minott, Enos Samuel Forrester.....	New York City.
Mosher, George.....	New York City.
Mount, Louis Burgh, A.B.....	Troy, N. Y.
Murray, Morrison Foster.....	Brooklyn, N. Y.
Murset, Charles William.....	Port Jervis, N. Y.
Naddolman, Max.....	New York City.
Neef, Frederick Emil, M.D.....	Springfield, Ill.
Newton, George Albert.....	St. James, N. Y.
Oberndorf, Clarence Paul, A.B.....	New York City.
O'Neill, Charles Leo, A.B.....	Newark, N. J.
Pace, Delmont.....	New York City.
Palmer, George Hollis.....	Brooklyn, N. Y.
Paltun, Samuel.....	New York City.
Park, David William.....	New York City.
Parker, Lina Maud, A.B.....	Seattle, Washington.
Parodi, Flaviano Eugenio, M.D.....	New York City.
Patterson, Robert Rhooode, A.B.....	Geneseo, N. Y.
Parsons, Payn Bigelow, A.B., M.D.....	New York City.
Payne, Charles Rockwell, A.B.....	Wadham Mills, N. Y.
Philips, James J., M.D.....	New York City.
Phillips, Earle W.....	Savannah, N. Y.
Placek, Louis Joseph.....	New York City.
Plunkett, Thomas Francis, A.B.....	Norwich, Conn.
Poate, Ernest Marsh.....	Rushford, N. Y.
Pooley, Thomas Rickett, Jr.....	New York City.
Price, Adelbert J.....	Dundee, N. Y.
Rabinowitz, Harold Max.....	Brooklyn, N. Y.
Rabinowitz, Meyer Alfred.....	Brooklyn, N. Y.
Rappaport, Barneth.....	Brooklyn, N. Y.
Rathgeber, Charles Frederick.....	Newark, N. J.
Ratnoff, Hyman Leon.....	New York City.
Ray, Anna Elizabeth, A.B., A.M.....	New York City.
Redding, Charles Joseph Vincent.....	Owego, N. Y.
Reed, James Erwin, Jr.....	Schenectady, N. Y.
Rein, Bernard.....	Brooklyn, N. Y.
Renotte, Marie, M.D.....	Sao Paulo, Brazil.
Richards, John Harold.....	Whitehall, N. Y.
Richardson, Frank Howard, A.B.....	Brooklyn, N. Y.
Robinson, Mary Humting.....	Ithaca, N. Y.
Rohdenburg, George Louis.....	New York City.
Rohm, John Philip, Jr.....	Newark, N. J.
Ronsheim, Joshua.....	Brooklyn, N. Y.
Rosenberg, Leopold, M.D.....	Bedford Station, N. Y.
Rothenberg, Louis.....	New York City.
Rothkowitz, Joseph.....	New York City.
Rubinowitz, Alexander Hyman.....	Brooklyn, N. Y.

# CORNELL UNIVERSITY MEDICAL COLLEGE.

Russianoff, Max Jacob.....	New York City.
Schiff, Leo Francis.....	Brooklyn, N. Y.
Schoenberg, Mark S., M.D.....	New York City.
Schwartz, Benjamin.....	New York City.
Schwartz, Leo Samson, Ph.G.....	New York City.
Scott, Mabel.....	Jackson, Miss.
Seibert, Otto J.....	Newark, N. J.
Shapero, Isador.....	New York City
Sheldon, William Hills.....	Auburn, N. Y.
Siegel, Abraham.....	New York City.
Siegel, Jacob Henry, Jr.....	Brooklyn, N. Y.
Sill, William Miller.....	Jamestown, N. Y.
Sindel, Benjamin.....	New York City
Slutsky, Nathan Israel.....	Brooklyn, N. Y.
Smith, John Van Wagner.....	White Plains, N. Y.
Smith, Samuel Newell, Jr.....	Providence, R. I.
Smithe, Percy Allis Winans, A.B.....	Ithaca, N. Y.
Smith, Warren George.....	Oneonta, N. Y.
Sonnenberg, Jerome.....	New York City.
Sophian, Abraham.....	New York City.
Spaulding, Harry Vanness.....	New York City.
Specht, William Henry, DD.S.....	New York City.
Spitzer, Harry.....	New York City.
Stark, George William.....	Little Falls, N. Y.
Startz, Benjamin.....	New York City.
Staten, Adolphus Burleson, B.S., M.D.....	Waco, Texas.
Stechman, Frederick William.....	New York City.
Stein, Herbert Edward.....	New York City.
Steinbugler, William Francis.....	New York City.
Stevenson, Hector Morrison.....	Brooklyn, N. Y.
Stroud, Bert Brennette, B.S., D.Sc., D.V.M.....	Forest Home, N. J.
Sutton, Frederick A.....	Hackettstown, N. J.
Takami, Tayohiko Campbell.....	Tuboy, Kumamoto, Japan.
Tietze, Samuel.....	New York City.
Todd, Leona Estelle, A.B.....	Willard, N. Y.
Tomkins, William.....	Brooklyn, N. Y.
Tousey, Thomas Grant.....	Pittsford, N. Y.
Tupper, Roy Valentine.....	Jersey City, N. J.
Unger, Max.....	New York City.
Vaughan, Ernest Masters.....	Brooklyn, N. Y.
Veith, George John.....	Paterson, N. J.
Vilimek, Joseph, M.D.....	New York City.
Vinton, Josephine C.....	Paramaibo, Dutch Guiana, S. A.
Wager, Max Louis.....	New York City.
Waldie, Thomas Edward.....	Brooklyn, N. Y.
Walker, Alfred Augustus.....	Birmingham, Ala.
Walker, Harry Abram.....	Ithaca, N. Y.
Walker, William Joseph, A.B.....	New York City.
Wallach, William Isidore.....	New York City.



# CORNELL UNIVERSITY MEDICAL COLLEGE.

Walsh, William Edward.....	Marcellus, N. Y.
Walzer, Abraham.....	Brooklyn, N. Y.
Wankel, George Canning.....	Utica, N. Y.
Wasch, Milton Goodman.....	Brooklyn, N. Y.
Weber, Salo, A.B.....	New York City.
Wechsler, Philip.....	New York City.
Wegman, Dominicus Charles.....	Jersey City, N. J.
Weinberger, Henry Harry.....	New York City.
Weinstein, Henry.....	New York City.
Wheeler, George Whiting.....	Buffalo, N. Y.
White, Alfred Winfield.....	Brooklyn, N. Y.
White, George Starr.....	Yonkers, N. Y.
Wicks, James Monroe.....	Brooklyn, N. Y.
Wicksman, Samuel.....	Brooklyn, N. Y.
Wilcox, Henry Hopson.....	Potsdam, N. Y.
Wilcox, Roscoe Squires.....	Bergen, N. Y.
Wincor, Henry.....	New York City.
Winslow, Floyd Stone.....	Henrietta, N. Y.
Wismar, William Frederic, A.B.....	So. Salt Lake City, Utah.
Workman, Isaac.....	New York City.
Worts, Elizabeth Mannister.....	New York City.
Wright, Arthur Mullin, A.B.....	Lyndonville, N. Y.
Zehnder, Anthony Charles.....	Newark, N. J.
Zingher, Abraham.....	New York City.
Zimmer, Wilson Briggs.....	Gallupville, N. Y.
Ziporkes, Joseph.....	New York City.
Zuckerman, Jerome.....	New York City.



## MATRICULANTS AT ITHACA.

Barber, George Lynn.....	West Chazy, N. Y.
Bradley, John Ruskin.....	King Ferry, N. Y.
Brown, Harold William.....	Jersey City, N. J.
Bryant, Janette Staples.....	Binghamton, N. Y.
Clark, George Horace.....	Rochester, N. Y.
Clurman, Morris Joseph.....	New York City.
Cooley, James Allen.....	Canandaigua, N. Y.
Crawford, Mary Merritt, A.B.....	Nyack, N. Y.
Culkin, Morris Thaddeus.....	Oswego, N. Y.
Denton, William.....	Port Jervis, N. Y.
Donk, Rose Rudolph.....	Newark, N. Y.
DuBois, Phebe Lott.....	Holmdel, N. J.
Durgan, Claude Clarke.....	Saranac Lake, N. Y.
Eckel, Edward Jacob.....	Syracuse, N. Y.
Edson, Ray Arthur.....	Crittenden, N. Y.
Evans, William Charles.....	Talcottville, Conn.
Failing, Brayton Earl.....	Sherburne, N. Y.
Foran, James Patrick.....	Elmira, N. Y.
Fowler, Royale Hamilton.....	Brooklyn, N. Y.
Gaby, Robert Edward, B.A.....	Toronto, Canada.
Gelien, Mrs. Johanna.....	Ithaca, N. Y.
Gillette, Arthur Taylor.....	Cuba, N. Y.
Godfrey, William Truitt.....	City Island, N. Y.
Gould, Lewis Arthur.....	Interlaken, N. Y.
Graves, Gaylord Willis.....	Ithaca, N. Y.
Greene, Harry Paul.....	Brattleboro, Vt.
Hagopion, Dicran Sttepan, A.B.....	Germir, Turkey.
Hamblet, Mary Lucia, B.A.....	Salem, Mass.
Hartigan, William Edward.....	Norwich, N. Y.
Hatfield, Hazel May.....	Newark, N. J.
Hess, Walter.....	New York City.
Hoch, George Francis.....	Newark, N. J.
Johnson, Edith Eugenie.....	Palo Alto, Cal.
Jones, Alfred Harrison.....	Ithaca, N. Y.
Keet, Ernest Ellsworth.....	Saranac Lake, N. Y.
Keith, Arthur Rubel.....	Rome, N. Y.
Kelley, Manley Spencer.....	Jamestown, N. Y.
King, Walter Edward, A.B.....	Kinsman, Ohio.
Koenig, Louis.....	Brooklyn, N. Y.
Knowles, Paul.....	Avon, N. Y.
Larkin, John Kneisley.....	Dayton, O.
Laurie, Thomas Forrest.....	Auburn, N. Y.
Leon, Harry.....	Little Falls, N. Y.

# CORNELL UNIVERSITY MEDICAL COLLEGE.

Lewis, Ora Mabelle, A.B.....	Lancaster, Mass
Longbothum, George Thornton.....	Fort Salonga, N. Y.
Luke, Harry Clifford, Ph.G.....	Salamanca, N. Y.
Martin, Arthur Chalmers.....	Rockville Centre, N. Y.
McKay, Florence Lucinda.....	Ithaca, N. Y.
Miller, Frederick Robert, B.A.....	Toronto, Can.
Mitchell, James Reid, Jr.....	New York City.
Moorman, Silas Mercer, A.B.....	Georgetown, Ky.
Munson, David Curtiss.....	Medina, N. Y.
Newman, Leander Allison.....	Penn Yan, N. Y.
O'Brien, Paul.....	Pittsburg, Pa.
Parker, Esther Emily.....	Matteawan, N. Y.
Pawling, Jesse Randolph.....	Watertown, N. Y.
Pease, George Norman, A.B.....	Portland, Ore.
Prince, Howard Love.....	Byron Center, N. Y.
Quinn, Patrick John.....	Oswego, N. Y.
Read, Effie Alberta, A.B.....	Haverhill, Mass.
Reed, Lucy Carleton.....	Southbridge, Mass.
Reid, Eva Charlotte.....	New York City.
Reid, John Irvin.....	Schenectady, N. Y.
Reilly, Daniel Robert.....	Cortland, N. Y.
Reynolds, Earl Charlton.....	Brushton, N. Y.
Rockwood, Harry Langdon.....	Olean, N. Y.
Rüeck, Gustav Adolf Theodore.....	South Byron, N. Y.
Schmidt, Frederick Elmer.....	Newark, N. J.
Seaman, Benjamin White.....	Rockville Center, N. Y.
Simpson, Reuben Spencer.....	Oswego, N. Y.
Skilton, Avery Wadsworth.....	Rockville Center, N. Y.
Stilson, George Doremus.....	Buffalo, N. Y.
Thomas, Belle.....	New York City.
Thomson, Archibald Wilson.....	Englewood, N. J.
Thro, William Crooks, B.S.A., A.M.....	Ithaca, N. Y.
Tinkler, John, Jr.....	Deposit, N. Y.
Toan, Lewis Austin.....	Perry, N. Y.
Walker, Alexander, Jr.....	Auburn, N. Y.
Wanless, Richard.....	Geneva, N. Y.
Webster, Blakeley Royce.....	Middletown, N. Y.
Welch, Stewart Henry, A.B.....	Uniontown, Ala.
Wellbery, Edward Montgomery.....	Seneca Falls, N. Y.
Welles, Edward Murray.....	Addison, N. Y.
White, Gershom Franklin, B. S.....	Malta, O.
White, Robert Joseph.....	Lockport, N. Y.
Williams, Rodney Ralph.....	Ithaca, N. Y.
Winslow, Elizabeth Bishop, A.B.....	Ithaca, N. Y.
Winter, Samuel Guy, A.B., A.M.....	Crooksville, Ohio.
Woodhull, Stephen Curtis.....	Ithaca, N. Y.
Wynkoop, Roy Baldwin.....	Chemung, N. Y.
Ziegler, Carl Albert.....	Syracuse, N. Y.

# HOSPITAL APPOINTMENTS.

1904.

## *Bellevue Hospital,*

Second Division.

Gerry Brown Dudley, A.B.,  
Hugh Holmes Carr,  
John Mead Hall,  
Arthur Soper Armstrong, A.B.,  
David Wallace MacKenzie, B.A.,  
Samuel Milbank.

Fourth Division.

George Wilbert Cottis.

## *Mt. Sinai Hospital.*

Isidore Goldstein.

## *Harlem Hospital.*

Louis Allen Parmenter.

## *Lebanon Hospital.*

Sydney Steiner,  
Harry Aranow.

## *Elizabeth General Hospital.*

Ralph Earle Brodie,  
Arthur William Albones.

## *St. Catherine's Hospital, Brooklyn.*

Raymond F. C. Kieb, A.B.,  
William Walter Rose.

## *St. John's Hospital, Brooklyn, N. Y.*

Carroll Leja Nichols.

## *Faxton Hospital, Utica.*

MacLeod D. Wilson.

## *St. Mary's Hospital, Hoboken.*

Harry Eno.

## *The Memorial Hospital, Worcester, Mass.*

Zella Mildred White.

## *Presbyterian Hospital.*

Charles Anthony Squires, A.B.

## *Methodist Episcopal Hospital, Brooklyn, N. Y.*

Theodore Bliss, A.B.,  
Grant Stanley, B.S.

## *Lincoln Hospital.*

Elliot Wagstaff Lawrance, Class '03.

## *Fordham Hospital.*

Paul Dolan, Class '03.  
Thomas Edmund Fitzgerald.

## *City Hospital.*

Harold Booth Judd.

## *Kings County Hospital.*

Henry Joachim,  
Ellery Newell Peck, A.B.

## *N. Y. Lying-in Hospital.*

Perry Lawson Ferry.

## *Christ Hospital, Jersey City.*

Charles Henry Webster.

## *Bushwick Hospital, Brooklyn, N. Y.*

Gerhard William Heuser.

## *Mercer County Hospital, Trenton.*

Cullen Bryant Maxson.

## *N. Y. Infirmary for Women and Children.*

Helen Carter.

## *N. E. Hospital for Women and Children, Boston, Mass.*

S. Elizabeth Finch.

## COLLEGE BUILDING.

The Medical School and a Dispensary, each with a main entrance on First Avenue, are arranged as follows:

The basement is commodious, well lighted, and ventilated, and contains the engines, boilers, dynamos and ventilating machinery; the refrigerating and cold-storage plant, with the injecting and freezing rooms; a large room with lockers, and another for bicycles. Storerooms, including one for drugs; four rooms, including a small theatre and a workshop, for orthopædic surgery; toilet rooms and lavatories, and several rooms for the janitor of the building, are also found here. On the basement level, but outside of the building, is a large incinerating furnace for consuming all the refuse from the College.

The principal entrances to the building are on the *First Floor*. They open from First Avenue into vestibules, one leading to the main hall of the school, the other to the general waiting room of the dispensary, between which the large amphitheatre is situated.

The rooms of the Children's Department, which include an isolating room and a small theatre, are placed between the entrances, while around the waiting room of the dispensary are located the office for distributing patients, the pharmacy rooms for the departments of surgery and medicine, waiting and dressing rooms, lavatories, and rooms for the Roentgen-ray and sterilizing apparatus.

Grouped around the main hall of the school on this floor are the council and faculty room, the office of the Dean, the secretary, and the clerk, a reading and recitation rooms.

Upon the *Second Floor*, the same general arrangement prevails. On the side of the dispensary there is a large waiting room, surrounded by rooms assigned respectively to the departments of genito-urinary diseases, diseases of the nervous system, of the skin, and of the ear, while covering the space at the middle front of the building are the rooms belonging to the departments of the eye and the throat, with a series of twenty dark stalls for the simultaneous examination of as many patients by as many students. Small waiting and dressing rooms and lavatories for the convenience of the patients are also found on this floor. The upper part of the large amphitheatre, extending from the floor below, occupies the centre of the rear half of this floor. The remainder of the floor is given up to the school. Here is found a hall, around which are grouped recitation rooms and laboratories for clinical pathology. These laboratories have convenient access from the dispensary, permitting ready coöperation in the work carried on there.

The *Third Floor* of the building is given up to teaching space, excepting an area upon the "dispensary side" of the building, which is assigned to the departments of gynæcology and obstetrics. This comprises a small theatre, examining, waiting, dressing, and toilet rooms, manikin, and two recitation rooms. The remainder of this floor is occupied by two

## CORNELL UNIVERSITY MEDICAL COLLEGE.

amphitheatres (each having a seating capacity of about 175 students); one for anatomy, physiology, and pathology, the other for chemistry; attached to each are preparation and research rooms. The chemical laboratories also occupy this floor, including the main laboratory, the laboratory for physiological chemistry, rooms for apparatus, etc., and a library of chemistry.

There is the usual hall and corridor space with toilet rooms and lavatories.

The *Fourth Floor* is occupied by the upper part of the two amphitheatres which project from the floor below. The department of pathology and bacteriology occupies the remainder of this floor. Ample facilities are provided, not only for the class work and demonstrations, but for special and advanced courses and investigations. A library of pathology and bacteriology is situated here.

The *Fifth Floor* is devoted to the department of practical anatomy. The main dissecting room occupies a space of 160 by 55 feet; there is also a large room, 40 by 50 feet, which is set apart for advanced undergraduates and post-graduates. These rooms can be cooled by the refrigerating plant in such a manner as to permit the pursuit of practical anatomy with as much comfort in summer as in winter.

This floor presents such facilities as lockers for 300 students, a small demonstration theatre with prosecuting and cold-storage room attached, private dissecting rooms, a bone room, a library, a reading and study room, and a commodious room for instruction in operative surgery.

The department of photography, the animal house, and a room for the preparation of bones are placed in a half-story at the top and rear of the building.

There are two main staircases, one for each department of the building, passenger elevators, and a freight lift.

The building itself is fireproof throughout, being constructed of steel, stone, brick, marble, and tile. The glazed brick and glazed tile walls, tile floors, and enamel painted cast-iron trim to the doors and interior of the windows insure cleanliness. Special attention has also been paid to the problems of refrigeration, lighting, heating, and ventilation, so that every part of the structure can be easily kept at all times in an agreeable and sanitary condition.

In conjunction with this building the Loomis Laboratory will be employed in the manner already set forth.



# CORNELL MEDICAL ALUMNI SOCIETY.

## AIMS.

"ARTICLE II. The aims of this Society shall be as follows:—(1) To further the interests of the Medical College and the interests of the University at large. (2) To further the interests, educational, professional and social, of the graduates of the Medical College. (3) To promote good fellowship among the graduates, and between the graduates and undergraduates of the Medical College."

## MEMBERSHIP.

"ARTICLE III., Section 1. All graduates of the Cornell University Medical College shall be considered members of this Society upon the payment of one dollar, after signifying their wish to join by signing the Constitution at the annual meeting, or by making application to the Secretary."

"ARTICLE III., Section 2. There shall be an annual fee of one dollar, to be paid on or before the date of the annual business meeting."

## OFFICERS.

"ARTICLE IV., Section 1. The officers of this Society shall consist of a President, Vice-President, Secretary, and Treasurer. They shall be residents of New York City during their term of office."

"Section 2. The term of office shall be one year."

## COMMITTEES.

"ARTICLE V., Sections 1 and 3. The officers of this Society, and six additional members elected at the annual meeting, shall constitute the Executive Committee. This Committee shall receive reports from all other Committees, and shall initiate and supervise plans for fulfilling the purposes of this Society. The President shall act as chairman *ex-officio*."

## MEETINGS.

"ARTICLE VI., Section 1. There shall be an annual meeting for the election of officers and the transaction of other business, to be held at the College Building during Commencement week, the date to be appointed by the Executive Committee."

"Section 2. There shall be at least one social meeting a year, held during the fall term, to which the Faculty, graduates and undergraduates, may be invited."

## OFFICERS FOR 1905.

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*Vice-President*—Dr. A. R. Green, '03.

*Secretary*—Dr. N. Gilbert Seymour, '02.

*Treasurer*—Dr. Leslie J. Meacham, '02.

Address all communications to the

SECRETARY OF ALUMNI SOCIETY,

Cornell University Medical College,

First Ave. and 28th St.







**CORNELL UNIVERSITY**  
**MEDICAL COLLEGE**

**ANNOUNCEMENT**

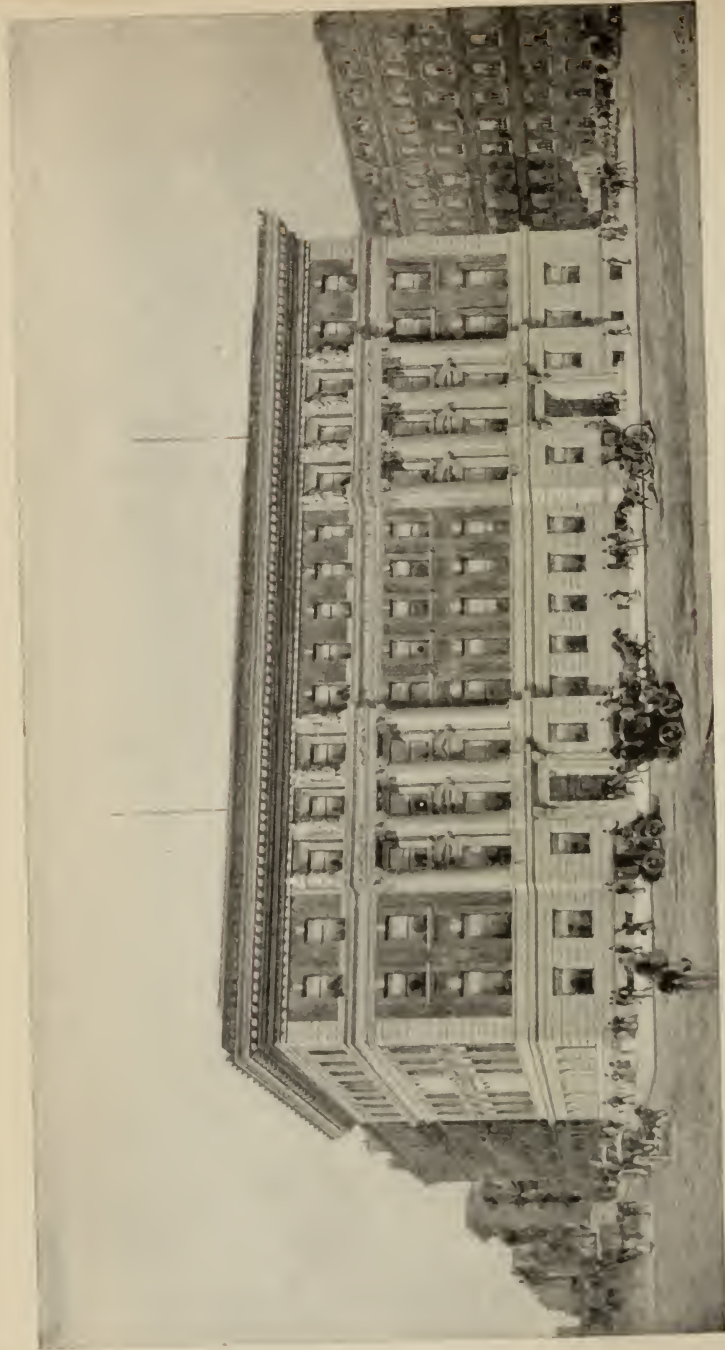
**1906=1907**

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**NEW YORK CITY**  
**PUBLISHED BY THE UNIVERSITY**







CORNELL UNIVERSITY MEDICAL COLLEGE



**CORNELL UNIVERSITY**  
**MEDICAL COLLEGE**

**ANNOUNCEMENT**

**1906 = 1907**



**NEW YORK CITY**  
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## CALENDAR.

1906.

Sept. 18-22.—Examinations for admission to the first year of all departments of the University.

Sept. 24, Monday—Examinations begin for conditioned students and for those applying for advanced standing in the medical department.

Sept. 26, Wednesday—College opens.

Nov. 6, Tuesday—Election day. Legal holiday.

Nov. 29, Thursday—Thanksgiving recess begins.

Dec. 3, Monday, 9 A.M.—Thanksgiving recess ends.

Dec. 21, Friday—Christmas recess begins.

1907.

Jan. 2, Wednesday, 9 A.M.—Christmas recess ends.

Jan. 2, Wednesday }  
Jan. 3, Thursday } Mid-winter Examinations.

Feb. 22, Friday—Legal holiday.

Mch. 29, Friday—Easter recess begins.

April 1, Monday, 9 A.M.—Easter recess ends.

May 13, Monday—Examinations begin.

June 12, Wednesday—Commencement.

All students must be registered at the secretary's office at the opening of the session. No student will be admitted after October 6th without special permission of the faculty. Immediately after registration the fees must be paid at the treasurer's office.

Men may take the first two years in either New York or Ithaca. Women must take the first two years at Ithaca. All students take the last two years in New York.

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\* Term of office (5 years) expires in 1906, the next group of six in 1907, etc., etc.

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<sup>2</sup> A., elected by Alumni.



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## MEDICAL COLLEGE COUNCIL.

At the foundation of the Medical College the following resolution establishing a Medical College Council and determining its functions was adopted by the Board of Trustees of Cornell University:

*Resolved*, that for the purpose of making recommendations to the Board of Trustees or the Executive Committee in relation to the business management of the Medical College there be established, and there is hereby established, a Medical College Council which shall consist of seven members, to wit: the President of the University (who shall be *ex-officio* chairman), the Director of the Medical College, and three trustees to be elected by the Board of Trustees or the Executive Committee who shall be appointed, one for one year, one for two years, and one for three years, and their successors be appointed for three years, and two members of the Faculty, to be elected by the Faculty, who shall be appointed, one for one year, and one for two years, and their successors to be appointed for two years, and that all appointments to fill vacancies be made for unexpired terms.

The Council at present consists of the following members:

JACOB GOULD SCHURMAN, President of the University  
and Chairman *ex-officio* of the Council.

WILLIAM M. POLK, Director of the Medical College.

H. W. SACKETT,  
H. R. ICKELHEIMER, } of the Board of Trustees.  
H. H. WESTINGHOUSE, }

L. A. STIMSON,  
R. A. WITTHAUS, } of the Faculty.

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---

\* See note on page 6.

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ROBERT G. REESE, Ph.G., M.D.,

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HANS J. SCHWARTZ, M.D.,

*Clinical Instructor in Surgery, Department of Dermatology.*

GUSTAVE SEELIGMAN<sup>N</sup>, M.D.,

*Clinical Instructor in Obstetrics.*

WILLIAM SHANNON, A.B., M.D.,

*Clinical Instructor in Medicine, Department of Diseases of Children.*

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*Clinical Assistant in Surgery, Department of Otology.*

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*Clinical Assistant in Medicine, Department of Diseases of the Nervous System.*

WALTER C. MONTGOMERY, M.D.,

*Clinical Assistant in Surgery, Department of Laryngology and Rhinology.*

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FRANK W. ROBERTSON, M.D.,

*Clinical Assistant in Medicine, Department of Diseases of the Nervous System.*

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*Clinical Assistant in Surgery, Department of Otology.*

PERRY SCHOONMAKER, M.D.,

*Clinical Assistant in Surgery, Department of Laryngology and Rhinology.*

HENRY SCOTT, M.D.,

*Clinical Assistant in Surgery, Department of Orthopadic Surgery.*

HORACE S. STOKES, M.D.,

*Clinical Assistant in Medicine, Department of Diseases of Children.*

VICTOR CORSE THORNE, M.D.,

*Clinical Assistant in Surgery, Department of Diseases of the Genito-Urinary System.*

FRANK CLARK YEOMANS, M.D.,

*Clinical Assistant in Surgery, Department of Diseases of the Genito-Urinary System.*

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*Assistant Surgeon.*

TASKER HOWARD, M.D.

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### Department of Genito-Urinary Diseases.

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### Department of Psychopathology.

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Department of Pediatrics.

*Physicians.*

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WILLIAM SHANNON, M.D.

*Assistant Physicians.*

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BENJAMIN H. SEARING, M.D.

ALBERT BECKARY, M.D.

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*Assistant Surgeons.*

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Department of Otolaryngology.

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H. E. COOK, M.D.,

C. M. HICKEY, M.D.,

E. W. SHIPMAN, M.D.,

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Department of Laryngology.

*Chief of Staff.*

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*Assistant Surgeons.*

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WALTER C. MONTGOMERY, M.D.,

CHARLES MACK, M.D.,

PERRY SCHOONMAKER, M.D.

## FACULTY OF MEDICINE.

### Department of Orthopædics.

#### *Surgeon.*

P. HENRY FITZHUGH, M.D.

#### *Assistant Surgeons.*

DEAS MURPHY, M.D.,

JOHN J. NUTT, M.D.,

HENRY SCOTT, M.D.,

PERCY WILLARD ROBERTS, M.D.

### Department of Ophthalmology.

#### *Surgeons.*

ROBERT G. REESE, M.D.,

J. HERBERT CLAIBORNE, M.D.

#### *Assistant Surgeons.*

G. W. VANDERGRIFT, M.D.,

EDWARD B. COBURN, M.D.,

JOSEPH L. DIAS, M.D.,

A. L. OBERDORFER, M.D.

### Department of Radiography and Radiotherapy.

ALBERT C. GEYSER, M.D.

### Department of Drugs and Supplies.

#### *Apothecary.*

GUSTAVE T. RUCKERT, Ph.G.

#### *Assistant Apothecary.*

JOHN B. HEUSER, Ph.G.

J. THORN WILLSON,

*Managing Clerk of the College.*

First Avenue, 27th and 28th Streets.

WALTER R. SHEPHERD,

*Bookkeeper.*

## GENERAL STATEMENT.

The Medical Department of Cornell University was established in 1898. This undertaking, which had been contemplated by the Trustees for several years, was made possible by the gift to the University of a commodious and fully equipped building designed for medical instruction, and by the bestowal of a sufficient "Endowment Fund" for the generous maintenance of a large and vigorous school for higher education in medicine.

The Main College Building comprises a Medical School and Dispensary, with principal entrance on First Avenue, opposite Bellevue Hospital, and occupies the entire block between Twenty-seventh and Twenty-eighth Streets on First Avenue, extending back 100 feet, thus affording an available space of nearly 20,000 feet on each floor. The building is designed in a severe style of Renaissance architecture, and is constructed of Indiana limestone and red brick. See page 141.

The Loomis Laboratory (founded 1886) serves the purpose of undergraduate instruction, in connection with the laboratories in the College building. It has also been reorganized as a research laboratory and special departments have been established in bacteriology, physiological chemistry, experimental medicine, and pharmacology. Facilities are thus furnished to graduates in medicine who may desire to pursue further study or original research in the various departments of laboratory investigation.

The Metropolitan Street Railroad cars on Twenty-eighth and Twenty-ninth Streets and First Avenue connect with all the other lines of the company, by a system of transfers at Fourteenth, Twenty-third, Thirty-fourth, and Fifty-ninth Streets, and so put all the hospitals in the city within easy access of the College. A convenient station of the Manhattan Elevated Railroad is also at Twenty-eighth Street and Third Avenue. A station of the Subway is at Twenty-eighth Street and Fourth Avenue.



THE LOOMIS LABORATORY





## CLINICAL FACILITIES.

**The College Dispensary.**—One-half of the college building is allotted to the Dispensary, in which ample provision has been made for the accommodation of the various clinical departments, of which there are eleven, viz.: General Surgery, General Medicine, including the diseases of the Heart and Lungs, Gynæcology and Obstetrics, Diseases of Children, of the Nervous System, of the Genito-Urinary System, of the Skin, Eye, Ear, Nose and Throat, and Orthopædic Surgery.

Each Department has been furnished with all the instruments and apparatus necessary for the examination and treatment of patients. A number of small amphitheatres are placed in the Dispensary, so that the clinical instruction provided by the curriculum can be carried on without interfering with the treatment of patients.

The attendance in the Dispensary averages about 500 patients daily, so that the clinical material is abundant and accessible.

Members of the Faculty of Cornell Medical College hold appointments in the hospitals and dispensaries of the city, and are thus enabled to utilize for teaching purposes a great quantity and variety of clinical material. The most important and best of these hospitals are the Bellevue, New York, Presbyterian, German, St. Vincent, Gouverneur, Hudson Street, Willard Parker and Reception Hospitals, and the New York Eye and Ear Infirmary. Others are utilized from time to time, as necessity or opportunity arises. The major part of the bedside and clinical instruction is, however, conducted in Bellevue Hospital, which is directly opposite the College.

This hospital has 900 beds, and receives 24,000 patients annually. It contains an amphitheatre capable of seating 300 students, and also a number of small, newly built operating theatres, where section demonstrations in surgery and gynæcology are made before the class. Connected with the hospital is a hydropathic establishment, where students are shown the practical applications of baths, douches, massage, etc.

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The following clinics are held during the session:

Obstetrics and Gynæcology—Monday, 3 P.M.

Professor POLK.

Medicine—Tuesday and Friday, 3 P.M.

Professors LOOMIS and THOMPSON.

Surgery—Wednesday and Thursday, 3 P.M.

Professors STIMSON, WOOLSEY, DENNIS, and GWYER.

Genito-Urinary—Wednesday, 3 P.M., for half the term.

Professor ALEXANDER.

Nervous Diseases—Friday, 4 P.M.

Professor DANA.

## REQUIREMENTS FOR ADMISSION.

The laws of New York State require of the prospective student of medicine a preliminary education equivalent to that obtainable in a four years' course in any academy or high school recognized by the Education Department as maintaining a satisfactory standard, before the applicant can be admitted to any class in any medical college in the State. A list of the subjects ordinarily taught in these schools is given in Handbook No. 3 published by the Education Department, and mailed on application to this department, Albany, New York. In this it will be found that each subject, according to its character and the time usually devoted to it, is assigned one or more "counts," 60 of which are needed to obtain the medical-student certificate. This official approval of the preliminary education may be granted by the Regents on presentation to them of properly attested evidence that the requisite work was accomplished in a registered institution. In lieu of this the applicant is required to pass the examinations conducted by the State authorities at regular intervals throughout the year.

As the ordinary 60 count "Medical-Student Certificate" required by law can be obtained with little or no knowledge of the English language, and of subjects which are absolutely essential to a proper understanding of any natural science, all applicants for admission must earn their medical-student certificate in part upon the following subjects, as described in "Handbook No. 3, Education Department, Examinations, 1905-10."

Algebra, 5 counts; Plane Geometry, 5 counts; Third-Year Eng-

## CORNELL UNIVERSITY MEDICAL COLLEGE.

lish, or its equivalent, 10 counts; Second-Year Latin, or the first four books of Cæsar's "Commentaries," 10 counts, or First-Year Latin, 5 counts, and First-Year German, French, or Spanish, 5 counts. Total, 30 counts.

The subject-matter covered in these requirements, which must be included in the Regents' certificate, is briefly summarized as follows:

Algebra includes the elements of the subject through quadratic equations.

Plane Geometry includes the geometry of the plane, the ordinary definitions, and demonstrations of simple original theorems.

Three years of English comprise (1) reading and composition, including the theory of construction in prose; (2) terms of style, figures of speech, and prosody; (3) the uniform college entrance requirements for reading and prose (see p. 26).

Two years of Latin include a knowledge of grammar and the ability to translate at sight simple passages from any standard author, or from the first four books of Cæsar's "Commentaries." The alternative to Second-Year Latin, namely, First-Year Latin with First-Year German, French, or Spanish, comprises under the heading, First-Year Latin, a knowledge of grammar, the rendering of simple prose from Latin into English, and *vice versa*. Under the heading of First-Year German, French, or Spanish, a similar knowledge is required.

The total number of counts allowed by the Regents for these required subjects aggregate 30. The Faculty recommends that the remaining 30 counts necessary to complete the certificate be made up from the following subject-groups enumerated in Handbook No. 3 of the Education Department of the State of New York: Science; Mathematics; Language and Literature; History and Social Science.

Students who can earn a portion of these 30 counts upon Physics (5 counts) and Inorganic Chemistry (5 counts), as is earnestly recommended, may be given credit for them, and the time thus gained will be devoted to intensive work in the medical branches.

A certificate of the College Entrance Examination Board, or Cornell University Entrance Examination, covering any of the above subjects, provided at least Grade C (60) is obtained, may be exchanged for corresponding Regents' Examinations.

# CORNELL UNIVERSITY MEDICAL COLLEGE.

*Attention is called to the fact that applicants who have successfully completed the first year in any college or university recognized by the Education Department as maintaining a proper standard will be considered as having had the requisite preliminary education, and will be admitted without further formality to the first year of the medical course, provided they first present their diplomas or certificates of education to the State authorities, and thus obtain the ordinary medical student's certificate.*

Applicants who have not obtained the requisite number of "counts" in the spring examinations conducted by the College Entrance Board or the New York State Education Department may take examinations conducted by the University in the fall in the college building at 28th Street and First Avenue. A description of the subjects for which credit may thus be gained, together with the number of "counts" allowed for each, and the date and time of the examinations, are given below.

To make these examinations of the utmost use, the University authorities have decided to duplicate the examinations ordinarily conducted in the fall at Ithaca only, and to open them to applicants for admission to all departments. Permits to take these September examinations in New York city must be secured by filing the requisite credentials at the Registrar's office in Ithaca. The permits should be obtained at least twenty-four hours before the date of the examination to be taken. They will be sent by mail upon application. If entrance to the Medical Department only is desired, the permit for the examinations may be obtained by application either to the Secretary of that Department in New York, or to the Registrar in Ithaca.

The following table shows the equivalent subject as given under the College Entrance Examination Board, and the number of counts allowed for each by the New York Education Department:

Cornell University Subject.	"Counts."	Equivalent College Entrance Board Subject.
1. English.	13	English a, b.
2. Ancient History (to 814 A.D.).	5	Ancient History.
3. Modern History (from 814 A.D.).	5	Mediæval and Modern Hist.
4. American History (inc. Civil Government).	5	American Hist. and Civil Gov.
5. English History.	5	English History.
6. Plane Geometry.	5	Plane Geometry.
7. Elementary Algebra.	7	Elementary Algebra.
8. Solid Geometry.	2	Solid Geometry.

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Cornell University Subject.	"Counts," Equivalent College Entrance Board Subject.
9. Advanced Algebra.	3 Advanced Algebra.
10a. Plane Trigonometry.	2 Plane Trigonometry.
10b. Spherical Trigonometry.	1 Spherical Trigonometry.
11a. Elementary German.	10 Elementary German.
11a. and b. Advanced German.	5 Intermediate German.
12a. Elementary French.	10 Elementary French.
12a and b. Advanced French.	5 Intermediate French.
13a. Elementary Spanish.	10 Spanish.
13a and b. Advanced Spanish.	5 ———
14. Latin Grammar.	2 Latin Grammar.
14a. Cæsar.	6 Cæsar.
14b. Latin Composition.	2 Latin Composition.
14c. Cicero.	4 Cicero.
14d. Virgil.	4 Virgil.
15. Greek Grammar.	2 Greek Grammar.
15a. Xenophon.	6 Xenophon.
15b. Greek Composition.	2 Greek Composition.
15c. Homer.	3 Homer.
16. Physics.	5 Physics.
17. Chemistry.	5 Chemistry.
18. Botany.	5 Botany.
19. Geology.	5 ———
20. Zoölogy.	5 ———
21. Drawing.	5 ———

A full description of the subjects required for entrance into the Medical Department is given below. The description of the other subjects can be found in the University Register.

**English.**—1. One hour of examination is assigned to answering questions upon the books marked *A*. Two more hours are occupied with writing longer papers upon subjects taken from the books marked *B*.

The books prescribed for 1906, 1907, and 1908 are: *A*, Shakespeare, *The Merchant of Venice*, *Macbeth*; *The Sir Roger de Coverley Papers in the Spectator*; Irving, *Life of Goldsmith*; Coleridge, *The Ancient Mariner*; Scott, *Ivanhoe*, *Lady of the Lake*; Tennyson, *Gareth and Lynette*, *Elaine*, *The Passing of Arthur*; Lowell, *The Vision of Sir Launfal*; George Eliot, *Silas Marner*. *B*, Shakespeare, *Julius Cæsar*; Milton, *Lycidas*, *Comus*, *L'Allegro*, *Il Penseroso*; Burke, *Conciliation with America*; Macaulay, *Essay on Addison and Life of Johnson*.

The examination is not designed to test the candidate's familiarity with the history of English literature or with the minutiae of the



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books prescribed, but to test his ability to express himself readily and easily in accordance with the usages of ordinary prose composition. To this end the candidate is urgently advised:

*a.* To train himself in writing concise paragraphs in answer to questions upon the most striking narrative and descriptive incidents in the books of the *A*-list.

*b.* To study more systematically the contents of the books of the *B*-list, endeavoring to retain a knowledge of each book as an organized whole. This result will be best secured by writing numerous essays or compositions of considerable length upon the general purport of each book.

*c.* To cultivate—in all his writings—the habits of correct grammar and spelling (including proper names characteristic of the books read), of correct sentence-structure, punctuation, and paragraphing.

*d.* To avoid most carefully the error of believing that the mere oral memorizing of the contents of the books prescribed is the kind of preparation desired. The candidate is expected to learn from these books the art of expressing himself.

In every case the University examiner will treat mere knowledge of the books as less important than the ability to write good English.

**Plane Geometry.**—The usual theorems and constructions contained in the best text-books on this subject, including the general properties of plane rectilinear figures, the circle and the measurement of angles, similar polygons, areas, regular polygons and the measurement of the circle.

Also the solution of original exercises, including loci problems, and the mensuration of lines and plane surfaces.

(A knowledge of the metric system of weights and measures is assumed in all the examinations in mathematics.)

**Elementary Algebra.**—As much as is contained in the better American and English text-books on this subject, including in particular:

The four fundamental operations with rational algebraic expressions, factors, common divisors and multiples, involution including the binomial theorem for positive integral exponents, radicals, including the extraction of square roots of polynomials and of numbers, fractions, including ratio and proportion, fractional and negative exponents, and arithmetic and geometric series.

Also the solution of equations of the first degree (both numerical



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and literal) involving one or more unknown numbers, the solution of quadratic equations, and of the easier cases of equations involving one or more unknown numbers that can be solved by the methods of simple or quadratic equations.

It is assumed that pupils will be required throughout the course to solve numerous problems which will involve putting questions into equations, and to fully discuss their solutions. Some of these should be practical problems chosen from mensuration, physics, etc.; the use of graphical methods and illustrations, particularly in connection with the solution of equations, is also expected.

**Elementary German.**—(6 Units).—(a) The examination will require an accurate knowledge of the principles of grammar, and especially of the declension of articles, adjectives, pronouns, and nouns; the conjugation of verbs; the prepositions and their government; the uses of modal auxiliaries; the elementary rules of syntax and word order. The proficiency of the applicant will be tested by questions on the above topics and by the translation into German of simple English sentences. (b) Translation at sight of a passage of easy prose containing no rare words. It is believed that the requisite facility can be acquired by reading not less than two hundred duodecimo pages of simple German.

Practice in pronunciation, in writing German from dictation, and in the use of simple German phrases in the class room is recommended.

**Elementary French** (6 Units).—(a) The translation at sight of ordinary nineteenth century prose. It is important that the passages set be rendered into clear and idiomatic English. It is believed that the power of translating at sight ordinary nineteenth century prose can be acquired by reading not less than four hundred duodecimo pages from the works of at least three different authors. Not more than one-half of this amount ought to be from works of fiction. This number of pages is to include not only prepared work, but all sight reading done in class. (b) The translation from English into French of sentences or of a short connected passage, to test the candidate's familiarity with elementary grammar. Elementary grammar is understood to include the conjugation of regular verbs, of the more frequent irregular verbs, such as *aller*, *envoyer*, *tenir*, *pouvoir*, *voir*, *vouloir*, *dire*, *savoir*, *faire*, and those belonging to the classes represented by *ouvrir*, *dormir*, *connaître*, *conduire*, and

craindre; the forms and positions of personal pronouns, the uses of other pronouns and of possessive, demonstrative, and interrogative adjectives; the inflection of nouns and adjectives for gender and number, except rare cases; the uses of articles, and the partitive constructions.

Pronunciation should be carefully taught and pupils be trained to some extent to understand spoken French. The writing of French from dictation is recommended as a useful exercise.

**Elementary Spanish (6 Units).—**(a) The rudiments of grammar, including the conjugations of the regular and the more common irregular verbs, the inflection of nouns, adjectives and pronouns, and the elementary rules of syntax. (b) Exercises containing illustrations of the principles of grammar. (c) The reading and accurate rendering into good English of from 200 to 250 duodecimo pages of graduated texts, with translation into Spanish of easy variations of the sentences read. (d) Careful drill in pronunciation and writing Spanish from dictation.

Suitable texts for the elementary work are: Moratín's *El Sí de las Niñas*; Caballero's *La Familia de Alameda*; Alarcón's *El Capitán Veneno*, and Valera's *El Pájaro verde*.

**Latin (18 Units).—**Candidates are examined in the entrance requirements adopted by the College Entrance Examination Board. These are:

a. i. **LATIN GRAMMAR:** The inflections; the simpler rules for composition and derivation of words, syntax of cases and the verbs; structure of sentences in general, with particular regard to relative and conditional sentences, indirect discourse, and the subjunctive; so much prosody as relates to accent, versification in general, and dactylic hexameter.

ii. **LATIN COMPOSITION:** Translation into Latin of detached sentences and very easy continuous prose based upon Cæsar and Cicero.

b. **CÆSAR:** Any four books of the *Gallie War*, preferably the first four.

c. **CICERO:** Any six orations from the following list, but preferably the first six mentioned: The four orations against Catiline, Archias, the Manilian Law, Marcellus, Roscius, Milo, Sestius, Ligarius, the fourteenth Philippic.

d. **VIRGIL:** The first six books of the *Æneid*.

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### Proposed Course for the Degree in Arts (A.B.) and in Medicine (M.D.).

As a liberal education in the arts and sciences is of great advantage to prospective students of medicine, all who can are urged to take the Freshman, Sophomore, and Junior years in the Academic Department at Ithaca. After the completion of these years in the Academic Department (in which all the work is elective) the student is permitted to elect, as the fourth year of his A.B. course and first year of his M.D. course, a year's work in the Medical Department at Ithaca. He may then take his fifth year of work—the second of the medical course—either in Ithaca or in New York; but he must take the last two years of the medical course in New York. In this way he will obtain the A.B. degree at the end of four years, and the M.D. degree at the end of seven years of study. This is possible because the first two years of the medical course in New York are offered in duplicate at the University in Ithaca.

Women must take the first two years in medicine in Ithaca, where special accommodations are provided for them in the Sage College. They are received at the Medical College in New York City in the third and fourth years only.

Students who have taken the A.B. degree, as above, will, if they have anticipated in the Academic Department the scientific studies prescribed in the medical course, be admitted to advanced standing in the Medical College in New York. Those who have completed all the subjects prescribed for the first two years of the course in medicine will be admitted to the third-year class. After passing the requisite examinations at the end of this and then of the fourth year, they will be advanced to practically a fifth year, consisting almost entirely of practical training. At its close, provided the work has been satisfactory, the M.D. degree will be conferred. As this fifth year gives opportunity for more than the requisite work, students who have taken the A.B. degree in the Academic Department may, even if deficient in one or more of the prescribed subjects of the medical course, still be admitted to the third-year class in New York, but only upon the recommendation of the Medical Faculty at Ithaca.

The schedule of this fifth year will be somewhat as follows:

There will be weekly recitations in the subjects of Medicine, Surgery, Anatomy, Materia Medica and Therapeutics, and Ob-

## CORNELL UNIVERSITY MEDICAL COLLEGE.

stetries and Gynæcology. A competent corps of instructors is suggested by the Faculty, but the students are at liberty to make their own selection and financial arrangements in quizzing, the chief object of which is preparation for the competitive examinations for the appointment of internes held each spring by the various hospitals. The fee for such "quizzes" averages about \$100, and the time will be from 5 to 6 P.M., or at any other convenient hour daily. The rest of the day is to be devoted to practical training in the College dispensary and laboratories. In the dispensary the departments of General Medicine and General Surgery hold morning and afternoon sessions. The afternoon hours are devoted to the nine specialty departments of Neurology, Gynæcology, Pediatrics, Laryngology, Orthopædic Surgery, Dermatology, Ophthalmology, Otology, and Diseases of the Genito-Urinary System.

The Ithaca students who take this fifth year will act as regularly appointed clinical assistants in these various departments for the twelve months following the conclusion of their fourth year of medicine. Groups of five will serve during the morning hours, on alternative days, in the Departments of General Medicine and Surgery. At the end of six months, those who have had the privilege of selecting in the order of standing at the end of the fourth year general medicine will change to general surgery, and *vice versa*. In the mornings of the days when not engaged in the dispensary, these groups of five students will report in one of the laboratories of clinical or histological pathology or bacteriology and, as they may elect, either pursue research work upon a subject to be selected after consultation with Professor Ewing, or act as assistant (unpaid) instructors in the class-room work in these laboratories. The results of research work, if satisfactory, will be included in the regular publications of the department of Pathology.

During the afternoons, groups of not more than three students will serve in rotation as clinical assistants in each of the nine specialty departments of the dispensary. The length of time spent in each department will vary somewhat with the number of students and the duration of vacation desired; but at present it is expected that about one month will be devoted to daily attendance in each specialty. It is the intention of the Faculty to

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allow the utmost liberty in the selection of courses consistent with the acquirement of a thorough general and practical education. For this reason, if desired, the student will be assisted in obtaining the position of clinical assistant in any dispensary or department of a dispensary which supplies opportunities equivalent to those offered by the College. The internes in the various city hospitals are often forced to absent themselves from duty on account of sickness or other reasons. The members of the Faculty who visit such hospitals can thus frequently supply substitutes from competent students for these positions for longer or shorter periods. Such places, of course, cannot be promised in advance, but may confidently be expected by a greater or less number.

The required work of this fifth year is then briefly summarized as follows:

A quiz of at least one hour a week in each of the subjects of Medicine, Surgery, Anatomy, Materia Medica and Therapeutics, and Obstetrics and Gynæcology from October to April inclusive. At least two hours' daily service for four months each (preferably in the morning) in general medicine and general surgery in the College dispensary; at least two hours' daily service for one month (preferably in the afternoon) in each of the nine specialty departments of the College. If any of the work is elected in another dispensary or hospital, it must be one under the supervision of some member of the Faculty.

The fees for this year will be \$100, payable in advance to the College; and a graduation fee of \$25, payable at the end of the fifth year; and the fee payable to the quiz masters, of not more than \$100.

### CALENDAR OF REGENTS' EXAMINATIONS.

YEAR.	JAN.	JUNE.	SEPT.
1906 . . . . .	22-26	11-15	17-19
1907 . . . . .	21-25	17-21	25-27

NOTE.—September examinations will be held in New York, Albany, Syracuse, and Buffalo, for law and medical students only. The other examinations are held in New York at the Grand Central Palace, Lexington Ave. and 43d St., and in numerous academies and high schools throughout the State for professional and academic students.



## CORNELL UNIVERSITY MEDICAL COLLEGE.

### Extracts from Regents' Rules.

**Order of Studies.**—There is no restriction in the order in which studies may be taken. Advanced students who may come from other States, or who, for other reasons, have not passed in elementary subjects, may take them at any time: *e. g.*, arithmetic after algebra or geometry; English composition after rhetoric, etc.

**Time Limit.**—There is no limit of time, but all credentials issued by the University are good until cancelled for cause. Studies necessary to obtain any credential may be passed at different examinations.

Seventy-five per cent. of correct answers is required in all subjects.

Answer papers will be reviewed in the Regents' office, and all papers below standard will be returned to the candidates. For those accepted, pass-cards will be issued.

**Pass-Cards.**—A Regents' pass-card is not limited in time; therefore it is not necessary to pass any Regents' examination a second time.

**Medical-Student Certificate.**—When all requirements are fulfilled, the Regents grant a medical-student certificate on payment of a fee of 25 cents.

On receiving this certificate, the candidate must send it to the secretary or recording officer of the university or college at which he intends to study medicine.

**N. B.**—*Candidates for medical students' examination should send notice at least ten days in advance, stating at what time and in what studies they wish to be examined*, that required desk-room may be provided at the most convenient place.

Candidates who fail to send this advance notice will be admitted only so far as there are unoccupied seats.

### Medical-Student Certificates Without Examinations.

Students who may be entitled to the medical-student certificates on equivalents are advised to present or forward their credentials to the Secretary of the College, who will send them to the Regents for examination and approval. They will be returned as soon as verified, and, if accepted, the proper certificate will be sent with them.

Other equivalent credentials from foreign countries or from other States may be accepted by the Regents at their discretion.

The secretary will furnish full information on request.

### Directions for Obtaining a Regents' Medical-Student Certificate.

1. Give the full name of the applicant, the exact name of the institution and of the department attended, an accurate description of the course pursued, using the same terms that are given in the official announcement, circular, or catalogue of the institution.

Send an official announcement, circular, or catalogue of the institution, showing:

(a) Requirements for admission; *i.e.*, subjects and years given to their completion.

(b) Requirements for graduation in each course, including subjects pursued and time devoted to each.



## CORNELL UNIVERSITY MEDICAL COLLEGE.

### Amendment to Medical Law, 1902.

At their meeting, July 1, 1901, the Regents took the following action:  
*Voted*, That beginning with the September, 1901, medical licensing examinations, a recent photograph of each candidate be required as a part of the application for admission.

In accordance with the medical law, as amended in 1902, the Regents admit conditionally to the tests in anatomy, physiology and hygiene, and chemistry, applicants 19 years of age certified as having studied medicine not less than two full years of at least nine months each, in two different calendar years, in a medical school registered as maintaining at the time a satisfactory standard; provided that such applicants are of good moral character, have the requisite preliminary education, and pay the fee of \$25; the final examinations in surgery, obstetrics, pathology and diagnosis, and therapeutics, including practice and materia medica, to be passed after having finished the full period of study and having received the medical degree.

Candidates who have studied medicine not less than the minimum period of two years, whether undergraduates or graduates in medicine, are admitted conditionally as aforesaid to the examinations in anatomy, physiology and hygiene, and chemistry; if such applicants fail to attain 75 per cent. in one or more of these three topics they must be reëxamined in all topics and must wait at least six months before reëxamination; and candidates failing to obtain at least 75 per cent. in one or more of the topics at the final examinations in surgery, obstetrics, pathology and diagnosis, and therapeutics, including practice and materia medica, after having passed in the three preliminary topics, must be reëxamined in all four of the final topics and must wait at least six months before reëxamination.

The Regents may, in their discretion, accept as the equivalent of the first year in a registered medical school evidence of graduation from a registered college course, provided that such college course shall have included not less than the minimum requirements prescribed by the Regents for such admission to advanced standing.

### Registration and Matriculation.

Students on entering the College must register at the secretary's office, and pay the registration fee of \$5. The payment of this fee is required only once. They will receive a receipt which will be exchanged for a certificate of full matriculation when they shall have complied with the requirements stated on page 35. No conditional matriculation will be accepted. The full 60 count Regents' certificate, including the 30 counts in the subjects specified, must be presented.

### Advantages Gained by Preliminary Education.

Graduates of Cornell, Yale, Harvard, Princeton, University of Pennsylvania, Johns Hopkins, Columbia, University of Mich-

## CORNELL UNIVERSITY MEDICAL COLLEGE.

igan, and other accredited universities, who have taken either a preparatory medical course or special work in organic or inorganic chemistry, physics, or physiology, will be allowed credit for the work which they have done, and may be excused from the recitations upon these subjects, and from the exercises of the chemical laboratory in the first year, provided they pass examinations before the professors of these departments, and provided they give to dissection and electives as described on pages 41-42, in the various departments, a full equivalent in hours to the subject they may have passed by examination.

Students who have had training in microscopical technique or in histology will be given advanced work in the histological laboratory.

### Admission to Advanced Standing.

Students who have already attended the requisite number of courses in other accredited medical colleges, may be admitted to advanced standing in any one of the years of the four years' course of the Cornell University Medical College, by presenting the requisite Cornell Regents' medical-student certificate and by passing examinations in the subjects described on pages 88-90 as completed, in the year or years previous to that which the student desires to enter. The applicant must also present certificates of having satisfactorily completed laboratory courses equivalent to those required of the Cornell medical students in the year or years previous to that to be entered.

According to law, no student from a Medical School which has not been registered by the Regents may obtain a degree on less than two years of medical study in this State.

### Holders of Special Degrees.

Graduates of pharmacy or of dental or veterinary or other professional schools, who can present satisfactory evidence of having completed any course of study required in any year by this College, may upon passing a satisfactory examination be excused from attendance upon instruction in that subject, provided they take equivalent additional work in other branches.

### Admission to Special Courses.

Graduates in medicine, or students who desire to pursue a special course without graduation, are admitted to registration as

## CORNELL UNIVERSITY MEDICAL COLLEGE.

special students, after approval by the head of the department conducting the course, without Regents' or other preliminary examination. Such special courses do not count in any way as part of the four years' course required of candidates for the degree of doctor in medicine. Further information regarding such courses, fees, etc., may be obtained by addressing the Secretary of the Cornell University Medical College, First Avenue, 27th to 28th Street, New York.

### NEW YORK STATE SCHOLARSHIPS.

Under the law of the State, the Commissioner of Education is empowered to award annually a number of free scholarships in Cornell University equal to the number of Assembly Districts in the State. These scholarships entitle the holder to free tuition for four years in any department of Cornell University. They are awarded on examination to candidates from the general Assembly Districts "in consideration of their superior ability and as a reward for superior scholarship in the academies and public schools of this State."

For particulars in regard to these scholarships, application should be made to the Commissioner of Education at Albany, N. Y.

Holders of State scholarships are notified that failure to register before the close of registration day involves the severance of their connection with the University and consequently the forfeiture of their scholarships. The President of the University is required by law to send immediate notice of such vacancies to the Commissioner of Education and the Commissioner fills vacancies forthwith.

### UNIVERSITY UNDERGRADUATE SCHOLARSHIPS.

Pursuant to the action of the Trustees, there will annually be thrown open to competition for all members of the freshman or first-year class who are registered in courses leading to first degrees, at a special examination held at Ithaca, at the beginning of the freshman year, eighteen scholarships of the annual value of \$200 each.

Students of high ability from the State of New York will have the additional advantage of being able to secure State scholarships, as there is nothing in the University statutes to prevent

# CORNELL UNIVERSITY MEDICAL COLLEGE.

a student from holding both a State scholarship and a University scholarship.

These scholarships will be awarded on the basis of examinations in three of the six groups mentioned below.

[(a) and (b), however, may not be taken by the same candidate, and every candidate must take either (b) or (c) or (d).]

(a) Algebra through quadratic equations, and plane geometry.

(b) Solid geometry, advanced algebra, plane and spherical trigonometry. (c) Greek. (d) Latin. (e) French. (f) German.

For further information in regard to the scholarships see the Register of Cornell University (Ithaca, N.Y.).

## CHARGES FOR INSTRUCTION.

### *First Year.*

Registration* . . . . .	\$ 5 00	
Tuition . . . . .	150 00	
Laboratory fees . . . . .	35 00	
	\$190 00	

### *Second Year.*

Tuition . . . . .	\$150 00	
Laboratory fees . . . . .	35 00	
	\$185 00	

### *Third Year.*

Tuition . . . . .	\$150 00	
Laboratory fees . . . . .	35 00	
	\$185 00	

### *Fourth Year.*

Tuition . . . . .	\$150 00	
Laboratory fees . . . . .	25 00	
Graduation fees . . . . .	25 00	
	\$200 00	

Each student is required to pay to the clerk of the College the following amounts to cover breakage in the Laboratories and Dispensary departments:

1st year, Laboratory and Dispensary . . . . .	\$10 00
2d year, Laboratory and Dispensary. . . . .	15 00
3d year, Laboratory and Dispensary . . . . .	10 00
4th year, Dispensary . . . . .	5 00

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\* The registration fee is payable only once, on entrance.

## CORNELL UNIVERSITY MEDICAL COLLEGE.

These deposits, less the amount charged for breakage, will be returned at the end of each year.

Tickets must be taken out and paid for at the beginning of the session.

### SPECIAL STUDENTS.

Special students, on the recommendation of the head of the department concerned, may be admitted to any of the courses of instruction offered in the College, or to any course of instruction especially provided, on the payment of a registration fee of five dollars and a tuition fee of twenty-five dollars, except in dissection, where the tuition fee is fifteen dollars.

The graduation fee is payable on registering for graduation. The tuition fees for the first two years at Ithaca are identical with those of the same period in New York. All fees are payable at the beginning of the term, but in special cases they may be paid semi-annually in advance. No rebate will be made in any case.

No remission of laboratory fees will be made because of previous instruction elsewhere in the subjects.

### EXPENSES OF STUDENTS.

The following estimate of the annual expenses of a candidate for a degree in the Medical School is based on the statements of students.

	<i>Low.</i>	<i>Average.</i>	<i>Liberal.</i>
Matriculation (once only) . . .	\$ 5 00	\$ 5 00	\$ 5 00
Tuition (as at present fixed) . . .	190 00	190 00	190 00
Books . . . . .	16 00	28 00	35 00
Chemical apparatus . . . . .	4 00	5 00	6 00 up
Room . . . . .	92 00	130 00	190 00 "
Board . . . . .	124 00	129 00	147 00 "
Clothes and laundry . . . . .	59 00	80 00	112 00 "
College incidentals . . . . .	16 00	21 00	24 00 "
Other expenses . . . . .	46 00	74 00	98 00 "
Graduation fee (last year) . . .	25 00	25 00	25 00 "
Total . . . . .	\$577 00	\$687 00	\$832 00



## GENERAL STATEMENT OF THE PLAN OF INSTRUCTION.

THE chief features in the scheme of instruction are thorough laboratory training in all the subsidiary branches, daily recitations from standard text-books, clinical teaching in dispensaries and at the bedside in hospitals, and enough didactic lectures to make clear the general principles and conflicting theories in the practice of medicine and surgery. All students in any one class advance simultaneously in the various subjects, and no section or group works apart from any other, thereby losing the opportunity to appreciate the relationship of the different subjects which at any given time may be under discussion. Allowance, however, has been made for those who through natural endowments or superior energy or previous education can outstrip their less fortunate fellows. A careful record is kept of the attendance and character of the work of every student, and by this means at the end of the year each is placed in the section to which this record entitles him. A system of electives in clinical, laboratory, and recitation work is also provided, which it is the aim of the Faculty to enlarge as opportunities arise. A student is required to master all the subjects taught in any given year before being allowed to advance to the next, as the knowledge acquired in each year is necessary for a proper understanding of that which follows. Examinations are held at the end of each session; a failure to pass not more than two subjects, one of which at least must be a laboratory subject, is allowed in the spring, but every subject must be satisfactorily passed at the beginning of the next ensuing college year, or the applicant will be compelled to repeat the work of the preceding year.

*The essential feature of the entire system is the division of the classes of the several years into small sections for recitations, demonstrations, laboratory exercises, and for clinical instruction in the college dispensary, and in the wards of the numerous hospitals attended by the members of the Faculty.*



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The following is a statement of the curriculum in each of the four annual sessions necessary to obtain the degree of M.D., and attention is called to the careful arrangement of the instruction in time and correlation in subject-matter so as to provide for a proper understanding and assimilation of the knowledge imparted in the different departments.

If a student, without neglecting his required schedule work, desires to take advanced work and can make an opportunity to do this, without interfering with the work of other students, he shall be permitted to do so and shall receive credit for it.

**The first year** is devoted to anatomy—several consecutive uninterrupted hours being provided for dissection—normal histology, chemistry, physics, and embryology. The gross anatomy of the thoracic, abdominal, and pelvic viscera is demonstrated in outline in the early weeks of the session in anticipation of the examination of these organs in the histological laboratory and a consideration of their physiology in the second half of the session.

The general principles of mechanics, hydrostatics, optics, electricity, heat, and acoustics, and their application to medicine, are taught in lectures illustrated by experiments. Inorganic chemistry is studied in the laboratory throughout the year. The class is divided into small sections, each of which must attend daily one or more recitation exercises in anatomy, histology, physiology, and chemistry. These follow as closely as possible the practical work.

Students who have had the advantage of a thorough preliminary education in physics and chemistry before entering the medical school, after satisfactorily demonstrating to the professor in charge of this department, by examination or otherwise, that they are familiar with the work of the first year, may be excused from attendance upon these subjects. In their place they must elect at least one of the following courses given in the second year—namely, laboratory pharmacology, or physiological chemistry, or bacteriology.

**During the second year** anatomy, physiology, and chemistry are completed, and the study in text-books of medicine, surgery, obstetrics, and pathology is begun. The gross anatomy of the organs of special sense, and then that of the nervous system, is taught at the outset of the year by demonstrations to small

groups of students. The demonstration of these organs is followed as closely as possible by the study of them in the histological laboratory during the first half of the session. The lectures and recitations in physiology follow the same course, and, in connection with the study of the gross and histological aspects of the parts under discussion, are more fully comprehended. Organic and physiological chemistry are studied in the laboratory and by lectures and recitations throughout the year. At the same time a laboratory course in pharmacology is pursued, familiarizing the student with the physical and chemical properties of drugs. Bacteriology is begun, the student commencing with the preparation and care of media and the recognition of the gross and microscopical characteristics of microorganisms.

During the first few weeks of the term lectures are delivered upon the general principles of pathology, with particular reference to the elucidation and classification of the various forms of inflammation. The substance of these lectures will form the basis of the subsequent instruction in this subject in all departments, and thus insure uniformity in the teaching and understanding of the causes of disease. These lectures are supplemented by autopsies before small sections to demonstrate gross lesions. Having obtained some knowledge of pathology, the student by means of recitations is made familiar with the principles of surgery, medicine, and obstetrics.

Students who have completed elsewhere courses in physiological chemistry or pharmacology equivalent to those of the second year, may by passing examinations at the beginning of the term be excused from further attendance upon them.

Students thus excused from part of the second-year work and those who have been allowed electives in their first year may take one or more of the following elective courses during their second year—namely: 1. Bacteriology in its practical relation to disease. 2. Materia medica recitations of the third year. 3. Manikin course in obstetrics. 4. Obstetrical clinic. The two latter elective courses are in preparation for the required work in practical obstetrics, which, usually taken in the third, can thus be taken during the second summer if desired.

Students are allowed to take the State Board licensing examinations in the primary subjects at the end of the second year.

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Those intending to reside in this State are encouraged to avail themselves of this opportunity.

**In the third year** medicine, surgery, materia medica, therapeutics, and obstetrics are studied systematically from text-books and practically at the bedside, in the dispensary, and in general clinics. A sufficient number of didactic lectures are given by the Professors of Medicine and Surgery at the beginning of the session to explain general principles in symptomatology and diagnosis. Throughout the year the class must attend in small sections one or more daily recitations from standard text-books upon subjects previously assigned and learned. Pathology is studied in greater detail than previously, both in the laboratory and in the dead-house, and as far as possible morbid processes are demonstrated in advance of the study of the disease in the text-book or its clinical presentation.

In conjunction with the bedside teaching, instruction is given in all of the modern laboratory aids in diagnosis classified under the term of clinical pathology.

Students in groups of ten or twelve are taught the methods of examining patients for the detection of abnormal physical signs, and at the close of the session are expected to be familiar with the recognition and treatment of the common diseases and be conversant with the fundamental subjects of a medical education. The specialties taken up in this year are neurology, pediatrics, toxicology, and gynæcology. They are taught by clinical lectures as part of the general subjects of the practice of medicine, surgery, and obstetrics.

**The fourth year** is devoted chiefly to the study of diagnosis and treatment of disease at the bedside, in the dispensary, and in clinics. The extent of this may be inferred from the present arrangement of the schedule, which contemplates about fifty hours of hospital-ward work in medicine and nearly the same number in surgery for every student. There are as few lectures as are consistent with the proper exposition of the chief problems confronting the profession, and these are delivered at the outset of the term, in order that the student may become familiar as soon as possible with the facts which are to be taught practically. For example, to the Professor of Medicine ten didactic lectures are assigned. This proportion has to be ex-

## CORNELL UNIVERSITY MEDICAL COLLEGE.

ceeded somewhat in therapeutics, obstetrics, and the specialties, but many of these lectures are illustrated by the presentation of typical cases and are really clinics. The clinical instruction in surgery is supplemented by an operative course in which the student performs upon the cadaver all the common operations. Particular attention is also given to the methods of making medical and surgical diagnoses, and in this connection constant use is made of the bacteriological and chemical laboratories, where the student examines specimens taken at the bedside during one exercise, and reports the results to the class at the next.

Hygiene and its application in the province of the physician and public health officer is taught by lectures supplemented by demonstrations of the plans and methods of the city health board.

The major part of the theoretical instruction, as in the previous years, is given by recitations in the subjects of medicine (including neurology), surgery (including orthopædic surgery and genito-urinary diseases), therapeutics, obstetrics, gynæcology, and pathology.

The instruction in the specialties, which is made the distinguishing feature of this final year, is begun with a few clinical lectures and is continued by a course in the examination and treatment of dispensary patients by each student. Every one receives from fourteen to twenty-eight hours of this training (the number varies somewhat with the subject), and should become reasonably proficient in the use of instruments, the ability to make diagnoses and give relief. There is no attempt made to produce experts, but each one before graduation must know enough about the specialized branches of medicine to be a competent general practitioner.

Every student must personally attend a definite number of cases of labor, and for this purpose the maternity service open to the college offers excellent opportunities. The Faculty earnestly recommend that this work be accomplished in the summer, preferably of the third year; by the proper choice of electives it is possible in the second summer, but this is not as desirable or profitable. If taken during the regular winter session much loss in other work may result. Those who for any proper reason cannot take this course as advised in the summer might, however,

## *CORNELL UNIVERSITY MEDICAL COLLEGE.*

succeed in obtaining the necessary cases during the winter by selecting odd hours when not engaged in section work, and by arrangement with the office to receive telephone calls.

To meet the requirements of hospital and other boards of examination, such as those of the civil service or of the army and navy, students who wish to compete in these examinations may elect in the fourth year to have all their recitation exercises with special instructors appointed by the faculty. A separate fee is required for this service. There is also offered an advanced course in neurology in a hospital devoted largely to the care of this class of patients. There will in addition be elective practical courses in the dispensary as opportunity arises.



# DETAILS OF THE PLAN OF INSTRUCTION.

## ANATOMY.

GEORGE WOOLSEY, M.D., *Professor of Anatomy.*

IRVING S. HAYNES, M.D., *Professor of Practical Anatomy.*

WILLIAM F. STONE, M.D., *Instructor.*

### *Demonstrators of Anatomy.*

WILLIAM F. STONE, M.D.,

JOHN J. NUTT, M.D.,

FRANK S. FIELDER, M.D.,

JOSEPH S. WHEELWRIGHT, M.D.,

BURTON J. LEE, M.D.,

ROLAND HAZEN, M.D.,

JOHN F. CONNORS, M.D.,

SEWARD ERDMAN, M.D.,

WILLIAM A. DOWNES, M.D.

Anatomy is taught in the first and second years by lectures, recitations, laboratory courses, section demonstrations, and by dissection. The course in anatomy is arranged to correspond as far as possible with the courses in physiology and histology.

**Lectures** in the first year are confined to the practical applied anatomy of the bones and joints, and follow the recitations on these subjects. In the second year the lectures are devoted to regional surgical anatomy, the students being already well grounded in descriptive anatomy.

One lecture a week is given during the first half of the second year by the Professor of Practical Anatomy on the development and gross anatomy of the nervous system, and the topographical anatomy of one of the extremities.

**Descriptive Anatomy** is taught by recitations, section demonstrations and laboratory courses, and by dissection.

**Recitations**, from standard text-books, are held by the Instructor in Anatomy twice a week for each section of the first-year class and once a week for each section of the second-year class. During the first year the recitations are upon the bones, joints,



## CORNELL UNIVERSITY MEDICAL COLLEGE.

muscles, arteries, veins, and a preliminary study of the central nervous system; during the second year upon the nervous system and the viscera.

### PRACTICAL ANATOMY.

**Section Demonstrations** are now conducted as laboratory courses in which a given region is not only demonstrated, but each member of the group is required to identify the structures on the part, specimen, or model. They are conducted by the Professor and Demonstrators of Practical Anatomy twice a week for each section during the first half of the first year and the last half of the second year, and once a week during the rest of the first and second years. During the first three months of the first year the students are taught by section demonstrations of that part of the cadaver they are next to dissect; how to dissect, what to find, and where to find it. In addition, one preliminary demonstration is given weekly from October to January on the thoracic, abdominal, and pelvic viscera, to prepare students for the courses in physiology and histology by demonstrating the organs whose function and structure they are to study. In the last half of the first year the joints are studied. In the second year the brain and nervous system, the organs of sense, the thoracic and abdominal viscera, and the perineum are studied.

**Dissection.**—The course in dissection is arranged on a laboratory basis—that is, the students are required to dissect during certain specified hours each day while the demonstrators are in attendance. Twelve hours a week are assigned in the schedule for this anatomical laboratory course during the first and second years, and dissection is permitted at any time after 10 A.M. that the students are at leisure.

*Two courses of dissection* are required. The first course for first-year students comprises the dissection of three parts—the head and neck, and the upper and lower extremities, including the joints. This course is begun after the recitations and section demonstrations have prepared each student for the part assigned to him.

The second course consists of the dissection of four parts, and is designed for second-year students and those first-year students who have completed the first course. This course includes a review

## CORNELL UNIVERSITY MEDICAL COLLEGE.

of the first course, with more particular attention paid to the minuter parts and, in addition, the dissection of the brain, the trunk, with the thoracic and abdominal viscera, and the perineum. A considerable part of the second course may be finished during the first year. This will afford time in the second year for additional and advanced work after completing the required parts. Students are examined and marked on the dissection of each part required. Prepared bones are loaned to students during the session from a large collection kept for this purpose.

**Examinations.**—A practical, in addition to a written, examination is held by the Professor of Anatomy at the end of the second year. At the end of the first year there is a written review or examination on the work of the year.

**Advanced, Special, and Post-Graduate Courses.**—Facilities are offered to students and the medical profession for pursuing advanced, special, and post-graduate courses in practical anatomy.

### SUMMARY.\*

	<i>First Year.</i>	<i>Second Year.</i>
Lectures . . . . .	30 hours.	90 hours.
Demonstrations . . . .	45 hours.	45 hours.
Recitations . . . . .	75 hours.	30 hours.
Dissection† . . . . .	192-240 hours.	80-120 hours.

*Text-Book*—Gerrish, second edition.

*Collateral Reading*—Gray; Cunningham; Morris; Quain; Toldt's *Atlas of Human Anatomy*; Woolsey, *Applied Surgical Anatomy*; Haynes, *Guide to Dissection and Manual of Anatomy*.

\* This and the following summaries represent the total number of hours for each student.

† Total of dissection required, 372-320 hours.

PHYSIOLOGY.

*Professor of Physiology.*

*Assistant Professor,*

JOHN A. HARTWELL, PH.B., M.D.

*Assistants.*

JOSEPH S. WHEELWRIGHT, M.D.,

ROBERT E. GABY, A.B.

Instruction in this branch is given by systematic and practical demonstrations and recitations to first-year students during the second half of the session, and to second-year students during the first half of the session. During the second half of the session, review recitations, covering the entire first-year and second-year courses, are held once a week for the second-year class, as a preparation for the final college and the State examinations.

As a preparation for the study of physiology proper, first-year students, during the first half of the session, receive instruction in the gross anatomy of the thoracic and abdominal viscera, by section demonstrations in the department of Practical Anatomy. The histology of the heart and blood-vessels, respiratory organs, alimentary canal, and glandular organs is taught in the laboratory and by recitations.

The regular second-year work in physiology is given during the first half of the session. Second-year students receive laboratory instruction in physiological chemistry in the department of Chemistry, Physics, and Toxicology. The same department gives instruction in optics and acoustics to first-year students, which serves as a preparation for the study of vision and audition in the second year. Second-year students receive laboratory instruction from the department of Histology in the histology of the nervous system and the organs of special sense. They also receive instruction from the department of Anatomy in the anatomy of the encephalon and cranial nerves, and from the department of Histology in the functional traits in the central nervous system.

**Demonstrations.**—The regular demonstrations for the first-year class begin about the middle of January, and are continued three

times weekly until the close of the session, on the following subjects and in the order named: The cell, blood, circulation, respiration, digestion and absorption, secretion and excretion, general metabolism, and animal heat and force. The regular demonstrations for the second-year class begin at the opening of the session, and are continued three times weekly until about the middle of January, on the following subjects and in the order named: The nervous system, embryology, and the special senses. Seven lectures on embryology, given in January, are devoted to the development of the ovum up to and including the formation of the membranes; while the demonstrations throughout are a combination of didactic lectures and practical illustration, the didactic method is used only in those circumstances where demonstrations before the class would fail to completely present the subject.

Throughout the entire course the subject of human physiology proper is fully covered; special attention is paid to its applications to the practice of medicine and surgery, much time being devoted to what may be called applied physiology.

**Recitations, Section Work, etc.**—Certain of the work in the histological laboratory is practically a part of the instruction in physiology. For first-year students, this includes laboratory work and recitations on the cell and karyokinesis, ciliary movements, blood, the histology of the simple tissues, heart, and vessels, respiratory system, digestive system, glandular organs, and the cellular mechanism of secretion. For second-year students the instruction includes a study, in the same manner, of the nervous system, organs of special sense, and the genito-urinary system. The instruction in physiological chemistry is given in the department of Chemistry to second-year students. It includes lectures upon physiological chemistry, laboratory work, and recitations on the carbohydrates and fats, proteids and albuminoids, food-stuffs, and the digestive secretions, endosmosis and exosmosis, and the chemistry of blood, bile, urine, and the simple tissues.

A laboratory course of forty hours is given to the second year students on the subject of Embryology. This is under the supervision of the department of Pathology.

In addition to the work in histology and physiological chemistry, and in close connection with the lectures on physiology proper, the Instructors give, three hours weekly, recitations, with frequent demon-

## CORNELL UNIVERSITY MEDICAL COLLEGE.

strations and practical exercises, to each class, divided into sections of convenient size, for first-year students during the second half of the session, and for second-year students during the first half of the session.

In the section-teaching, many demonstrations, by means of specimens, models, and apparatus, will be given which cannot with advantage be made before the entire class, such as blood-counting, the capillary circulation, blood-pressure, the use of the sphygmograph, the general physiology of nerve and muscle, etc.

In the course of the section-work, students who prove themselves capable may be permitted to aid in the preparation and giving of the demonstrations when this does not interfere with other exercises, this corps of student-assistants being changed from time to time so that the privilege may be extended to as many as possible.

### SUMMARY.

	<i>First Year.</i>	<i>Second Year.</i>
Demonstrations . . . . .	60 hours.	60 hours.
Recitations . . . . .	45 hours.	60 hours.

*Text-Book*—Flint, *Handbook of Physiology*, fifth edition, 1905.

*Collateral Reading*—Kirke, *Handbook of Physiology*, nineteenth English edition, 1904; Schäffer, *Text-Book of Physiology*; Stewart; Foster.

### ALLIED BRANCHES.

Physiological Chemistry (see department of Chemistry, Physics, and Toxicology).

Embryology (see department of Pathology).



CHEMISTRY, PHYSICS, AND TOXICOLOGY.

RUDOLPH A. WITTHAUS, M.D., *Professor of Chemistry.*

*Assistant Professor,*

IVIN SICKELS, M.D.

*Instructors,*

LOUIS W. RIGGS, M.D.,

CHARLES G. L. WOLF, M.D.

*Assistant,*

B. J. DUFFUSS, M.D.

**Lectures.**—Students of the first year will receive three lectures each week on physics, the divisions of the subject being considered in the following order: General properties of matter and force, mechanics, hydrostatics, pneumatics, optics, electricity, heat, and acoustics. The lectures will be abundantly illustrated, and the relations of physics to surgery and medicine will be particularly considered.

During the second year, students will attend two lectures weekly. Organic chemistry will be considered in the earlier part of the term to an extent sufficient to impart a knowledge of the principles of combination of the carbon compounds and the properties and relationships of those which are of physiological, toxicological, or therapeutical interest. The lectures during the latter part of the second year will be upon physiological chemistry.

During the third year one lecture will be given weekly on toxicology for twenty weeks. In these lectures the medical and medico-legal bearings of the subjects will be chiefly considered.

**Recitations.**—Students of the first year will recite twice each week on the principles of chemistry and mineral chemistry. Those of the second year will recite once weekly during the first eighteen weeks of the session, and twice weekly thereafter, on organic and physiological chemistry.

**Laboratory Work.**—Laboratory instruction will be given stu-



## CORNELL UNIVERSITY MEDICAL COLLEGE.

dents of the first year four hours weekly during the first eighteen weeks of the session, and two hours weekly thereafter. This course will consist of an experimental study of the commoner elements and compounds in illustration of the recitation course, and of training in the processes of qualitative analysis of inorganic substances, and mineral poisons.

Students of the second year will receive laboratory instruction two hours weekly until February 14th, and four hours weekly after that date in physiological and clinical chemistry and organic toxicology.

Each student is fully supplied with all apparatus and chemicals required, except urinometers, which are carefully corrected for the student that they may serve for future use.

These courses are conducted by the instructors under the direction of the Professor of Chemistry and Physics.

First-year students presenting satisfactory evidence of having performed equivalent work in chemistry and physics may be excused from first-year work in this department, and be given advanced laboratory work equivalent in hours to that omitted.

### SUMMARY.

	<i>First Year.</i>	<i>Second Year.</i>	<i>Third Year.</i>
Recitations . . .	60 hours.	45 hours.	
Laboratory . . .	96 hours.	84 hours.	
Lectures . . .	90 hours.	60 hours.	20 hours.

*Text-Book*—Witthaus, *Manual of Chemistry*; Riggs, *Laboratory Manual*.

*Collateral Reading*—Wolf, *Laboratory Handbook*; Ganot, *Physics*.

MATERIA MEDICA AND THERAPEUTICS.

HENRY P. LOOMIS, M.D.,

*Professor of Materia Medica and Therapeutics.*

*Instructors,*

WARREN COLEMAN, M.D.,

EDMUND P. SHELBY, M.D.

*Instructor in Pharmacology,*

ROBERT ANTHONY HATCHER, M.D., Ph.G.

*Clinical Assistant,*

WILLIAM J. JONES, M.D.

Instruction is given in this department during the second, third, and fourth years by means of: 1. Lectures. 2. Clinical instruction. 3. Recitations. 4. Laboratory work.

**Lectures.**—These are given by the Professor twice a week to the third-year students and once a week to the fourth-year students. They are confined almost exclusively to therapeutics, as it is believed that materia medica can best be taught by recitations and by laboratory work.

The lectures to the third-year students will consider the therapeutic uses of the most important drugs from the standpoint of the drug itself, such as the methods of prescribing the drug and the conditions for which it is given; only so much of the physiological action of the drug will receive attention as will explain its therapeutic value.

The lectures to the fourth-year students will be confined almost exclusively to a consideration of the systematic treatment of the different diseases. The plan of treatment will be given in detail, with definite instruction as to the drugs to be used and the preparations which are most reliable.

Lectures will be given on remedial agents other than drugs, such as massage, dietetics, climatology, mineral waters, and hydrotherapy.

**Clinical Instruction.**—A new departure in the teaching of therapeutics will be made by affording the students of the third

and fourth years opportunity to observe the effects of the different remedies on the natural course of diseases. To accomplish this the classes will be divided into small sections and taken by the Professor into the wards of Bellevue Hospital and the New York Hospital. Actual practice is given in the employment and application of the various therapeutic agents used in medicine, such as the aspirator, leeches, cups, cautery, stomach-tube, and stupes. The hydrotherapeutic establishment connected with Bellevue Hospital is one of the most complete in the country. Here to small sections will be demonstrated the various applications of water to the treatment of disease—such as baths, packs, douches, etc. A professional masseur will show the technique of massage and the Swedish movements. The treatment of the different diseased conditions observed will be systematically studied, and opportunities will be given to the members of the class to make personal examination of the patient and to watch the modification of disease produced by the remedies prescribed. The clinical work of the third and fourth years affords abundant opportunities for further training in practical therapeutics. A general medical clinic will be held by the Professor once a week in the amphitheatre of Bellevue Hospital, at which special attention will be given to the treatment of the diseases under consideration.

**Recitations.**—Students of the third year will recite to the instructor twice a week from a standard text-book. During the fourth year a recitation will be held once a week on therapeutics. The recitations will embrace a study of the action of all the more valuable remedial agents in connection with the description of the drugs themselves.

Each student will be thoroughly drilled in prescription-writing and in the doses of the more important drugs.

Examinations will be held at stated times during the session by the Professor to enable him to judge of each student's progress.

**Laboratory Work.**—The laboratory of *Materia Medica* occupies two floors of the Loomis Laboratory building; it is provided with a complete assortment of crude drugs and with all the various preparations of the *Materia Medica*; also with appliances for instruction in the methods of manufacturing pharmaceutical preparations. The laboratory is equipped with instruments and appliances for special research in the physiological action of drugs.

## CORNELL UNIVERSITY MEDICAL COLLEGE.

The large class room is supplied with sixty tables, equipped with gas, electric lights, water connections, and full apparatus, enabling each student to work separately under the supervision of the instructors.

The course of laboratory instruction is taken during the second year, and consists of six hours each week for half the year. The class is divided into small sections, which are under the personal supervision of the instructors. The method of teaching is distinctly practical. Instruction includes numerous exercises involving the manipulation of crude drugs and preparations, the occasion being used to review their physical, chemical, and medical properties.

About half of the laboratory course will be devoted to demonstrations and operations by the students upon frogs and mammals. This instruction, termed pharmacodynamics, is recognized as essential for a correct understanding of therapeutics.

In addition to these exercises the student will have frequent opportunities for examining the extensive materia medica collection, the ability to recognize the more important specimens being obligatory.

Considerable attention will be paid to prescription writing, and test prescriptions are compounded by members of the class.

### SUMMARY.

	<i>Second Year.</i>	<i>Third Year.</i>	<i>Fourth Year.</i>
Lectures . . . .		47 hours.	30 hours.
Recitations . . . .		60 hours.	30 hours.
Laboratory . . . .	90 hours.		
Clinics . . . .		30 hours.	30 hours.
Sections . . . .		5 hours.	5 hours.

*Text-Book*—Butler, *Text-Book of Materia Medica, Therapeutics, and Pharmacology*, 1906.

*Collateral Reading*—Coleman, *Syllabus of Materia Medica*; Wilson, *American Text-Book of Applied Therapeutics*; Thompson, *Practical Dietetics*; Sollmann, *Pharmacology*; Hatcher and Sollmann, *Text-Book of Materia Medica*.

# CORNELL UNIVERSITY MEDICAL COLLEGE.

## MEDICINE.

W. GILMAN THOMPSON, M.D., *Professor of Medicine.*

### *Professors of Clinical Medicine,*

ALEXANDER LAMBERT, M.D.,

CHARLES E. NAMMACK, M.D.,

WARREN COLEMAN, M.D.,

LEWIS A. CONNER, M.D.

### *Instructors and Assistants,*

C. N. BANCKER CAMAC, M.D.,      THOMAS WOOD HASTINGS, M.D.,

MONTGOMERY H. SICARD, M.D.,      JOHN W. COE, M.D.,

FREDERICK L. KEAYS, M.D.,      WALTER L. NILES, M.D.,

THEODORE B. BARRINGER, M.D.,      NATHANIEL R. NORTON, M.D.,

BERT R. HOOBLER, M.D.,      MORTIMER WARREN, M.D.

**The Course of Medicine** comprises a graded plan of study extending throughout three years. General didactic lectures upon the practice of medicine are wholly supplanted by bedside and dispensary instruction and recitations. The course includes the following subdivisions:

#### Second Year:

Recitations from a text-book upon elementary medicine, with written reviews.

#### Third Year:

1. Recitations from an advanced text-book, with written reviews.
2. Physical diagnosis of the heart and lungs.
3. History-recording.
4. Bedside course in symptomatology.
5. Dispensary course in general medicine.
6. Clinical pathology.
7. Twenty lectures on symptomatology.
8. Hospital medical clinics.

#### Fourth Year:

1. Advanced bedside study in symptomatology and diagnosis.
2. Demonstrations of patients by the student before the class in the out-patient clinic.
3. Physical diagnosis.
4. Hospital medical diagnosis clinics.
5. Medical conferences.



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6. Ten lectures upon diatheses, toxæmias, etc.
7. Elective advanced work in clinical diagnosis (clinical pathology, history-recording, etc.).
8. Recitations in medicine.

The details of the methods of instruction in medicine for each year of the curriculum are as follows:

### SECOND YEAR.

**Recitations.**—Second-year students begin the study of medicine with systematic recitations twice each week from an elementary text-book, in which the subjects of nomenclature, etiology, morbid anatomy, and typical symptoms only are dwelt upon.

### THIRD YEAR.

**Recitations.**—Third-year students recite twice each week from an advanced text-book on the Practice of Medicine, special emphasis being given to symptomatology, complications, diagnosis, and treatment.

Written reviews are held at intervals to familiarize the student with examinations. All recitations are obligatory, and the recitation marks received form an important component of the final examination marks of the year.

**Ward Work.**—Systematic and obligatory ward work is begun in classes not exceeding fifteen students each, who accompany the Professors of Clinical Medicine on rounds through the hospital wards. Examples of all the common diseases are studied, and the student has opportunity personally to examine many cases of disease in different stages of development, and of following their daily progress. A special course in general medical diagnosis is given at the bedside, in which the student observes cases illustrating all the important physical examinations.

**Dispensary Classes.**—Students in small classes are instructed in general medical diagnosis by Dr. Barringer in the new Out-Patient Department of Bellevue Hospital.

**Clinical Laboratory Courses** are conducted in immediate connection with the study of hospital and dispensary cases.

The laboratory is designed to meet the three requirements of:

- (1) *Teaching*; (2) *Original Research*, and (3) *Diagnosis*.



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(1) *Teaching.* The third-year class is divided into small sections, so that each member receives the personal assistance of the demonstrator. At the conclusion of the course a written and practical examination is held, and the result of this, as well as the character of the work done by each student, is included in the general average mark received by him in medicine. When assigned to cases at the general medical clinic in the fourth year the student is required to report the result of his examination of the sputum, blood, urine, etc.

The apparatus employed may readily be transported to the bedside, the work being thus essentially practical, and the student *himself* uses it so that he may become familiar with its care and application.

The course comprises the thorough study of the sputum, blood, gastric contents, fæces, urine, exudates and transudates.

Each student is furnished typical specimens which he stains and studies at the demonstrations.

(2) *Original Research.* Facilities are offered to graduate and undergraduate special students for the undertaking and publication of original investigations.

(3) *Dispensary, Hospital, and Clinical Laboratory Examinations.* The laboratory is a working part of the Cornell Dispensary. The visiting staff of this Dispensary, as well as that of the adjacent hospital, use the laboratory extensively for completing the data of their cases. Students who have completed their third year, and whose standing is good, may, under the supervision of the instructors, employ their summer months in following this work in the laboratory.

**Physical Diagnosis.**—Physical diagnosis of the chest is taught in classes not exceeding a dozen students each. This course of 30 lessons for each class is very comprehensive, owing to the large number of patients in the class of heart and lung diseases at the College Dispensary and in the wards of Bellevue Hospital.

The work consists of the study of:

- (1) Medical anatomy of the normal thorax and physical signs of the contained viscera.
- (2) Pathological conditions of the thoracic viscera with special reference to Methods of Physical Examination; Physical Signs in Disease.

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**General Medical Clinics.**—Students of the third year are required to attend a clinic in general medicine conducted by Professor Lambert (commencing in December), and also the clinic in medical diagnosis conducted by Professor Thompson, and the clinic in general therapeutics by Professor Loomis, as described for the fourth year. These clinics are held weekly in the amphitheatre of Bellevue Hospital.

**Lectures.**—A course of twenty lectures upon general symptomatology is given by the Professor of Medicine, which is designed as introductory to the systematic bedside teaching which he conducts upon hospital rounds.

### FOURTH YEAR.

**Bedside Instruction** is given by the Professor of Medicine to sections not exceeding fifteen students, in the wards of the Presbyterian Hospital until January 1st, and in those of Bellevue Hospital thereafter, throughout the year. In these sections each student is assigned in turn to special cases for thorough study. Ward classes are also conducted by Dr. Conner at the Hudson Street Hospital, and by Drs. Lambert and Nammack in Bellevue Hospital.

**Clinics.**—Medical clinics are held weekly in the amphitheatre of Bellevue Hospital by the Professor of Medicine. At these clinics students read written histories of cases which they have previously studied in the hospital wards. They are required to demonstrate their findings upon the patient, and are questioned before the entire class in regard to diagnosis, etc. These clinics are also utilized by the Professor of Medicine to exhibit cases of exceptional rarity or difficult diagnosis, and a few of them are conducted in coöperation with the Professor of Surgery in order to present to the students the value of conjoint medical and surgical points of view in appropriate cases. A second general medical clinic is held weekly in the Bellevue amphitheatre by the Professor of Therapeutics, at which the effects of treatment are made the prominent feature.

An out-patient clinic is also held weekly by the Professor of Medicine in the Dispensary of the College, at which students are given ample opportunity to examine patients, study minor ailments, as well as all the forms of disease in the ambulatory cases

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of a large and varied clinical service. More than 5,000 cases were treated during the past year in this department alone of the dispensary.

**Dispensary Classes**, comprising a dozen students each, are conducted in periods of five weeks for two hours twice a week. The students are taught methods of complete general physical examination, diagnosis, prognosis and treatment, and of history recording. Opportunity is afforded to follow the progress of cases from week to week, and to make clinical examinations of the sputum, blood, etc., in each case.

**Lectures.**—A course of ten lectures is given by the Professor of Medicine upon such general topics as the diatheses, toxæmias, auto-intoxication, cachexias, etc. Three lectures are also given by Dr. Conner upon the Internal Secretions, and three lectures by Dr. Camac upon the Clinical Aspects of Immunity.

**Medical Conferences.**—Under Dr. Coleman's direction, students are assigned to special cases which they study in detail for several weeks, reviewing the literature of the subject, and which they then report in writing at a medical conference, at which their fellow-students are called upon to offer criticisms and general discussion.

An elective course in advanced clinical pathology and diagnosis is offered in the fourth year.

### SUMMARY.

	<i>Second Year.</i>	<i>Third Year.</i>	<i>Fourth Year.</i>
Lectures . . . .		20 hours.	10 hours.
Recitations . . . .	45 hours.	60 hours.	30 hours.
Clinics . . . .		46 hours.	60 hours.
Sections . . . .		50 hours.	78 hours.

### CLINICAL PATHOLOGY.

Laboratory . . . .	60 hours.
Recitations . . . .	6 hours.

*Text-Books*—Musser, *Medical Diagnosis*; Tyson, *Physical Diagnosis*; Salinger and Kalteteyr, *Medicine*.

*Collateral Reading*—Loomis-Thompson, *American System of Practical Medicine*.

SURGERY.

LEWIS A. STIMSON, M.D., *Professor of Surgery.*

*Professors of Clinical Surgery,*

FREDERIC S. DENNIS, M.D.,	FREDERICK GWYER, M.D.,
GEORGE WOOLSEY, M.D.,	FRANCIS W. MURRAY, M.D.,
FREDERICK KAMMERER, M.D.,	PERCIVAL R. BOLTON, M.D.,
ALEXANDER B. JOHNSON, M.D.,	CHARLES L. GIBSON, M.D.

*Instructors,*

BENJAMIN TILTON, M.D.,	ARCHIBALD E. ISAACS, M.D.,
JOHN ROGERS, M.D.,	JAMES MORLEY HITZROT, M.D.,
WILLIAM F. STONE, M.D.	

*Assistants,*

GEORGE E. DODGE, M.D.,	WILLIAM A. DOWNES, M.D.
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Surgery is taught in the recitation room, at the bedside, in the dispensaries, at hospital clinics, and by lectures.

**In the second year** the students are required to attend recitations on the principles of surgery two hours a week throughout the term. For this purpose the class is divided into small sections to insure thorough work; so far as time permits instruction will also be given at the bedside.

**In the third year** recitations are continued upon regional surgery; the class is instructed in sections in Bellevue Hospital in history-taking and methods of surgical examination and diagnosis, three hours a week for part of the term; and also two hours a week bedside instruction. Formal clinics are held in Bellevue, New York, and other hospitals; about thirty lectures are given by the Professor of Surgery, and a clinic for diagnosis is held once a week throughout the term, at which the students are required personally to examine and report upon the cases.

**In the fourth year** the students receive clinical instruction in small groups in several hospitals and dispensaries upon general surgery and the special branches—eye, ear, nose and throat, genito-urinary diseases, dermatology and orthopaedics; may attend the lectures and

## CORNELL UNIVERSITY MEDICAL COLLEGE.

clinics, and will have a review quiz in preparation for examination.

The members of the sections are trained in the examination of patients, the dressing of wounds and fractures, the administration of ether and assisting at operations.

The opportunities for instruction in the special branches are exceptionally ample. There are several clinical teachers in each subject, each with hospital and dispensary services. The student will be enabled directly to examine and study cases, and will have a certain choice as to the time given to each branch.

In addition to the clinics at Bellevue and the New York hospitals specified above, Prof. Gibson will give clinics at St. Luke's and the General Memorial hospitals at dates to be announced during the session.

Lectures on special topics are given in the college lectures courses in the second term, to which students of all the classes are admitted.

**Operative Surgery** is taught to small sections of the class in the fourth year. The course consists of recitations, work upon the cadaver, and bandaging. As the material is abundant, each member of the class will perform the principal surgical operations.

*Special instruction* in operative surgery is offered to graduates in medicine. A circular giving particulars may be had on application to the Secretary.

### SUMMARY.

	<i>Second Year.</i>	<i>Third Year.</i>	<i>Fourth Year.</i>
Lectures . . . .		36 hours.	36 hours.
Recitations . . . .	60 hours.	60 hours.	30 hours.
Clinics . . . .		86 hours.	86 hours.
Sections . . . .		40 hours.	25 hours.
Operative Surgery .			30 hours.

*Text-Book*—Tillmann.

*Collateral Reading*—*American Text-Book*; Parks, *Surgery*; Stimson, *Fractures and Dislocations*; Stimson, *Operative Surgery*; Dennis, *System of Surgery*.



OBSTETRICS.

J. CLIFTON EDGAR, M.D., *Professor of Obstetrics and Clinical Midwifery.*

*Instructors,*

GEORGE D. HAMLEN, M.D.,      I. L. HILL, M.D.,  
ALBERTUS A. MOORE, M.D.,      GUSTAVE SEELIGMANN, M.D.

Instruction in obstetrics will be given during the second, third, and fourth years by—

1. Recitations. 2. Illustrative lectures. 3. Obstetric clinics and conferences. 4. Attendance upon cases of confinement. 5. Manikin practice and section work. 6. Obstetric histology, pathology, and bacteriology.

1. **Recitations** from a standard text-book will be held by an instructor in obstetrics during the second year upon the physiology, and during the third upon the pathology, of obstetrics, the latter including obstetric surgery.

These recitations are so scheduled as to cover the field of the subject laid out for the college year, are supplementary to the work of the Professor of Obstetrics during each of these two years, and prepare the student for an intelligent appreciation of his subsequent illustrative lectures, attendance upon cases of confinement, clinics, and manikin practice.

2. **The Illustrative Lectures** comprise a systematic course running through the third year, upon the physiology and pathology of obstetrics.

These lectures are theoretical to a limited extent only, being mainly demonstrative and illustrative in character. To this end ample blackboard space is used, as well as an abundant collection of pelves, entire, normal and deformed, mesial sections of the same, and in addition a supply of diagrams, charts, carefully selected plaster, composition, and metal models, wet and dry preparations, and instruments.

3. **Obstetric Clinics and Conferences.**—A weekly obstetric clinic is held by Professor Edgar a portion of the year for both the third- and fourth-year classes at the Manhattan Maternity and Dispensary, 327 East 60th Street. At this clinic abnormal cases of pregnancy, labor, and the puerperium are demonstrated, and the major and minor obstetric operations performed.



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In addition, infant feeding and the care of mother and child during the lying-in period and early infancy are taught. During both the third and the fourth year, members of the class will be called upon to examine patients and discuss etiology, diagnosis, prognosis, and treatment.

**4. Attendance upon Cases of Confinement.**—Each candidate for the degree of M.D. is required to present satisfactory evidence to the effect that he has attended a definite number of cases of confinement. To fulfill this requirement students may register as internes in the Manhattan Maternity and Dispensary, 327 East 60th Street, and receive this practical instruction from Professor Edgar and the instructor in obstetrics. Students are lodged in the above hospital for periods of two weeks or more, and attend confinement cases both in the hospital building and in the tenement-house districts of the upper east side of the city.

During the student's attendance upon his practical maternity course he may be excused from the exercises of the College during the fourth college year, otherwise he shall take his practical obstetric course during vacation time. Further information concerning the practical obstetric work may be obtained by applying at the Secretary's office.

**5. Manikin Practice and Section Work.**—Manikin practice is given to sections of the class during the third year, and consists of work by individual students upon the manikins, under the supervision and criticism of an instructor.

The mechanical phenomena of labor; modes of delivery; abnormal presentations and positions, with methods of delivery of each; version; application of the forceps, and other manipulations, will be demonstrated by the instructor and performed by the student.

Diagrams, models, casts, wet and dried specimens, will be used in the demonstrations.

The sections will also be instructed at the bedside at the Emergency Hospital and Manhattan Maternity and Dispensary in the management of pregnant and parturient women, the care of the newborn child, abdominal palpation, and pelvic mensuration.

**6. Obstetric Histology, Pathology, and Bacteriology.**—Laboratory instruction is given during the third year by the Professor of Pathology upon the histology of the vulva, vagina, uterus, ligaments, Fallopian tubes, and ovaries in the pregnant

## CORNELL UNIVERSITY MEDICAL COLLEGE.

and non-pregnant conditions, and upon the histology and pathology of the decidua, chorion, placenta, and umbilical cord.

### SUMMARY.

	<i>Second Year.</i>	<i>Third Year.</i>	<i>Fourth Year.</i>
Lectures . . . .		30 hours.	
Recitations . . . .	30 hours.	30 hours.	
Clinics . . . . .		15 hours.	15 hours.
Sections . . . . .		15 hours.	

*Text-Book*—Edgar, *Practice of Obstetrics*.

## DEPARTMENT OF PATHOLOGY.

INCLUDING HISTOLOGY, EMBRYOLOGY, GROSS AND  
MICROSCOPICAL PATHOLOGY, BACTERIOLOGY,  
AND EXPERIMENTAL PATHOLOGY.

JAMES EWING, M.D., *Professor of Pathology.*

BERTRAM H. BUXTON, M.D., *Professor of Experimental Pathology.*

JEREMIAH S. FERGUSON, M.D., *Instructor in Histology.*

OTTO H. SCHULTZE, M.D., *Instructor in Gross Pathology.*

MAX G. SCHLAPP, M.D., *Instructor in the Histology and Pathology  
of the Nervous System.*

WILLIAM J. ELSER, M.D., *Instructor in Bacteriology.*

JAMES C. JOHNSTON, M.D., *Instructor in Pathology.*

ISRAEL STRAUSS, M.D., *Instructor in Embryology.*

HENRY T. LEE, M.D., *Assistant in Pathology.*

GUY D. LOMBARD, M.D., *Assistant in Histology.*

FREDERICK B. HUMPHREYS, M.D., *Assistant in Histology.*

LEOPOLD JACHES, M.D., *Assistant in the Histology and Pathology  
of the Nervous System.*

RICHARD WEIL, M.D., *Demonstrator in Gross Pathology.*

HARVEY E. JORDAN, A.B., *Assistant in Histology and Embryology.*

THOMAS A. NEAL, M.D., *Assistant in Gross Pathology.*

FRANK M. HUNTOON, M.D., *Assistant in Bacteriology and Pathology.*

PHILIPP SHAEFFER, Ph.D., *Assistant in Experimental Pathology.*

JOHN C. TORREY, Ph.D., *Assistant in Experimental Pathology.*

OSCAR TEAGUE, M.D., *Assistant in Experimental Pathology.*

## HISTOLOGY.

The work in this subject is conducted throughout the first and during a portion of the second year by laboratory exercises and

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by recitations. Laboratory exercises, in two two-hour sessions weekly during the first year, and one two-hour session weekly during the second year, occupy in all about 150 hours for each student. The work covers the construction and use of the microscope, the methods of preparing microscopical sections of tissues, and the normal histology of the various tissues and organs of the human body. Attention is constantly directed to the application of the knowledge to physiology, and to further this end the courses in physiology and histology proceed as far as possible in unison. When desirable the structure of human tissues and organs is illustrated by sections of embryonal and lower vertebrate tissues.

In the first year the blood and simple tissues, the gastrointestinal tract and adnexa, and the respiratory, circulatory, and genito-urinary organs are studied. In the second year the organs of the special senses and the nervous system are considered.

**Recitations.**—One recitation weekly for each student is held during the first year, and the first half of the second year, on subjects assigned from the text-book on histology. These recitations are designed to completely familiarize the student with the structure of the tissues considered during the previous week in the laboratory exercises.

An examination is held at the end of each year. The standing of the student in this, as in the other subjects, is determined equally from the work in the laboratory exercises and in the recitations.

### EMBRYOLOGY.

In the latter half of the first year, a series of topics in embryology, which have special importance in medicine and pathology, are presented in a laboratory course, occupying about 40 hours for each student. These topics embrace the fertilization and maturation of the ovum, formation of germ layers, and the main facts regarding the development of the different systems and viscera. These topics are illustrated by microscopical sections, charts, lantern slides, and the Ziegler models. The laboratory work is supplemented by a course of fifteen lectures.

### PATHOLOGY.

The course of instruction in pathology in the second year 'com-

## CORNELL UNIVERSITY MEDICAL COLLEGE

prises a preliminary course of lectures on the theory and classification of inflammations, which is designed to acquaint the student with the main facts in this field, to prepare him for preliminary studies in medicine and surgery, and to establish a uniform system of nomenclature to be used in this and other departments. During one half the second year, also, attendance is required at one weekly demonstration in gross pathology, at which the more common visceral lesions are exhibited. This course is designed to accompany the preliminary recitations in medicine and surgery of the second year.

The main branches of the subject are grouped in the third year in order to secure the simultaneous study of the gross and microscopical changes in diseased tissues. In the fourth year the students perform autopsies, and attend lectures in special pathology.

**Microscopical Demonstrations in Pathology.**—The microscopical demonstrations occupy three two-hour sessions weekly throughout the third year, in all about 175 hours. The specimens studied illustrate the topics of inflammation, tumors, autointoxications, infectious diseases, and diseases of the nervous system, and are supplemented by lectures, and special demonstrations by means of sections, charts, lantern slides, and micro-photographs.

**Demonstrations in Gross Pathology.**—On the days alternating with the microscopical studies demonstrations of gross pathological specimens are given to the students of the third year, with the material collected from autopsies. With the viscera of each case is presented an epitome of the clinical history, and, when necessary, frozen sections of the organs, and the clinical symptoms are explained from the gross and microscopical changes in the altered tissues. The student here sees the viscera of many of the fatal cases which he has studied in the wards of the hospital.

Gross pathological diagnosis is taught as a separate branch of this subject, not bearing directly on the clinical aspect of the case.

These demonstrations occupy three two-hour sessions weekly, each section of the class attending one exercise weekly throughout the year.

**Post-Mortem Examinations.**—Students of the fourth year are required to perform autopsies under the direction of the in-

## CORNELL UNIVERSITY MEDICAL COLLEGE.

structor in gross pathology, when they are made familiar with the technical procedures required in ordinary and in medico-legal cases.

**Recitations.**—One recitation weekly is required of each student throughout the third year.

**Lectures.**—A series of lectures on special topics in pathology is given to students of the third and fourth years. These topics have included: The Mechanism of Immunity, the Etiology of Tumors, Cerebral Hemorrhage, Comparative Morphology of the Cerebral Cortex, etc. Attendance at these lectures is optional.

### EXPERIMENTAL PATHOLOGY.

During the year 1903 definite plans were formed to facilitate experimental studies in the Department of Pathology. The direct object of the plans was to associate together a number of competent workers whose time should be devoted to the study of problems in medical science. Abundant space and modern facilities have been provided in the Loomis Laboratory for experimental work in cellular pathology, bacteriology, and physiological chemistry, and for microphotography, and are available to approved applicants who desire to engage in this work under the direction of Professor Buxton. The members of this staff include also Dr. John C. Torrey, Dr. Philipp Shaffer, Dr. Oscar Teague, and assistants.

Since 1904 the work of the Huntington Fund for Cancer Research has been located in the Loomis Laboratory, under the direction of Professor Buxton and Dr. S. P. Beebe, assisted by Dr. Philip Shaffer, Dr. Martha Tracy, and others.

### BACTERIOLOGY.

The laboratory course in bacteriology occupies three two-hour sessions each week for one-half of the second year—in all, ninety hours for each student. The student is first made familiar with the methods of disinfection, and is required to prepare the ordinary culture media. The work then proceeds to the methods of staining and examining bacteria; their artificial cultivation and the study of biological characters; the methods employed in the separation of species; the general relation of pathogenic bacteria to disease; and concludes with the biological analysis of air, water, soil, and milk. Cultures are made from the viscera of cases of the various infectious diseases, and the student is



## CORNELL UNIVERSITY MEDICAL COLLEGE.

required to cultivate and identify the important pathogenic micro-organisms. The work is supplemented when necessary by the use of pure cultures, by the exhibition of anaërobic cultures, and to a limited extent by inoculation in animals.

**An Advanced Course** in bacteriology is offered to those students who have been able in the first year to attend the course required in the second year.

This course includes the cultivation of other pathogenic micro-organisms, the separation of species, and the bacteriological examination of viscera secured at autopsies.

**Advanced Courses and Research.**—The abundant facilities of the laboratory on the fourth floor of the new building can be offered to properly qualified students and practitioners of medicine who wish to pursue advanced courses of study on lines of original research, under the direction of special instructors.

### SUMMARY.

<i>Histology:</i>	<i>First Year.</i>	<i>Second Year.</i>	<i>Third Year.</i>	<i>Fourth Year.</i>
Recitations .	60 hours.	25 hours.		
Laboratory .	120 hours.	60 hours.		
<i>Embryology:</i>				
Laboratory .	30 hours.			
Lectures . .	15 hours.			
<i>Pathology:</i>				
Lectures . .		10 hours.		
Laboratory .			180 hours.	
Recitations .			30 hours.	
<i>Gross Pathology:</i>				
Laboratory .		15 hours.	60 hours.	30 hours.
<i>Bacteriology:</i>				
Laboratory .		90 hours.		
<i>Text-Books: Histology</i> —Ferguson, <i>Text-Book of Histology.</i>				
<i>Pathology</i> —Delafield and Prudden, <i>Pathological Anatomy and Histology.</i>				
<i>Bacteriology</i> —Muir and Ritchie, <i>Manual of Bacteriology;</i> Park, <i>Bacteriology.</i>				
<i>Collateral Reading</i> —Orth, <i>Pathological Diagnosis;</i> Ziegler, <i>General Pathology;</i> Sternberg, <i>Manual of Bacteriology;</i> Ewing, <i>Pathology of the Blood;</i> Minot, <i>Embryology.</i>				



# SPECIAL DEPARTMENTS OF MEDICINE AND SURGERY.

CORNELL UNIVERSITY MEDICAL COLLEGE.

## NERVOUS DISEASES.

CHARLES L. DANA, M.D., *Professor of Clinical Medicine, Department  
of Diseases of the Nervous System.*

*Instructors,*

ROBERT M. DALEY, M.D.,

LESLIE J. MEACHAM, M.D.

*Assistants,*

ALEXANDER S. LEVERTY, M.D.,

SHERMAN BROWN, M.D.

The regular work consists of a preliminary series of lectures by Professor Dana, in which the general outline of the work for the year is given, with demonstrations of the general anatomy, general symptomatology, and methods of examination of the nervous system. During the rest of the term clinical lectures on nervous diseases are held weekly in the amphitheatre of Bellevue Hospital or at the college. Section work is given weekly to classes in the wards of Bellevue Hospital, and three times a week in the dispensary of the college. In this dispensary, section-work instruction is given in history-taking in the examination of patients, and in electro-therapeutics.

It is considered of the greatest importance that the student of nervous diseases be thoroughly grounded in the anatomy and physiology of the nervous system, therefore courses in gross and microscopical anatomy of the nervous system are provided in the histological laboratory. Special students can also take courses on the pathology of the nervous system.

Thus the course of instruction aims to provide the student before he graduates with instruction in the microscopical anatomy of the nervous system, in its physiology and pathology, and also with practical clinical instruction in the amphitheatre, at the bedside, and in the dispensary.

# CORNELL UNIVERSITY MEDICAL COLLEGE.

## SUMMARY.

	<i>Third Year.</i>	<i>Fourth Year.</i>
Lectures . . . . .	5 hours.	
Clinics . . . . .	20 hours.	20 hours.
Sections . . . . .	15 hours.	5 hours.

*Text-Book*—Dana, *Diseases of the Nervous System and Psychiatry.*

*Collateral Reading*—Gower, *Diseases of the Brain and Spinal Cord*; works on nervous diseases by Dercum, Mills, Sachs, Starr; Obersteiner, *Anatomy of the Nervous System.*

## PSYCHO-PATHOLOGY.

ADOLPH MEYER, A.M., M.D., *Professor of Clinical Medicine, Department of Psycho-pathology.*

*Clinical Instructors,*

AUGUST HOCH, M.D.,

GEORGE H. KIRBY, M.D.

A series of five introductory lectures will be followed by eight clinics of two hours each at the Manhattan State Hospitals on Ward's Island, and seven optional lectures reviewing the clinical demonstrations. Provision will be made for some optional section work on Ward's Island or at the College Dispensary.

The course is to cover the principal data and methods of modern psycho-pathology, the diagnosis and legal commitment of the insane, and the medico-legal problems of insanity.

## SUMMARY.

Introductory lectures . . . . .	5 hours.
Clinics . . . . .	14 hours.
Section work (optional) . . . . .	4 hours.

*Text-Book*—Kraepelin, *Clinical Psychiatry*; Dana, *Nervous Diseases and Psychiatry*; Paton, *Psychiatry.*

## DISEASES OF CHILDREN.

JOSEPH E. WINTERS, M.D., *Professor of Clinical Medicine, Department of Diseases of Children.*

*Clinical Instructors,*

WALTER A. DUNCKEL, M.D.,

WILLIAM SHANNON, M.D.

# CORNELL UNIVERSITY MEDICAL COLLEGE.

## *Assistants,*

SAMUEL M. EVANS, M.D.,                      HORACE S. STOKES, M.D.,  
JOHN H. P. HODGSON, M.D.

This department will embrace clinical instruction and section teaching in all the important diseases of infancy and childhood.

There will be one clinical lecture each week in the college building, and clinical lectures in the Willard Parker Hospital on scarlet fever and diphtheria.

In connection with the dispensary of the Children's Department in the college building there is an amphitheatre for section teaching, and isolation rooms for contagious diseases, so that students have ample opportunity for the personal study of disease.

Two hours each week will be devoted to section teaching in the dispensary to the students of the fourth year.

Students will be required to examine sick children and discuss the diagnosis and treatment of patients assigned to them.

Special attention is given to the hygiene and feeding of infants; the digestive disorders of infants; the dietetics of childhood and the food disorders of infancy and childhood; the anatomical and physiological peculiarities of infancy and childhood; and the influence these peculiarities have on the manifestations of disease in children.

One of the distinguishing features of this department will be the instruction of each student in the art of diagnosis by the professor in charge.

There will be practical bedside illustrations of the management, care, and therapeutics of all the acute diseases of infancy and childhood.

In the clinical laboratory microscopical examinations will be made of secretions and excretions, of lesions of the mouth and throat, and of sections of anatomical lesions of the important diseases of childhood.

## SUMMARY.

	<i>Third Year.</i>	<i>Fourth Year.</i>
Clinics . . . . .	30 hours.	30 hours.
Sections . . . . .		10 hours.

*Text-Book*—Henry Ashby, *The Diseases of Children*, London, fifth ed., 1905; Rotch, *Pediatrics*.

*Collateral Reading*—Starr, *American Text-Book on the Diseases of Children*; Welch and Schomberg, *Acute Contagious Diseases*.

## HYGIENE.

Instruction in many of the branches of hygiene and preventive medicine is a prominent feature in some of the courses pursued in the several departments of Chemistry, Bacteriology, Pathology, and Medicine.

The topics thus covered include the chemical and bacterial analysis of air, water, milk; the preservation and adulteration of foods; and the general diagnosis, control, and prevention of infectious diseases.

The more distinctive branches of hygiene and preventive medicine are presented in a course of lectures to third- and fourth-year students. Some of the topics thus considered are:

(1) The hygiene of dwellings, ventilation, sanitary plumbing, lighting, water supply, disposal of sewage, school hygiene, and municipal sanitation. Dr. Woodbury.

(2) The chemical problems relating to the collection, storage, and distribution of water supplies. Dr. Riggs.

(3) The relation of diseases of lower animals to those of man. Meat inspection. Milk inspection. Prof. Moore.

(4) Epidemiology, prophylaxis, and hygiene of transmissible disease. Prof. Ewing.

*Text-Books*—Eghert, *Hygiene and Sanitation*; Bergey, *Text-book of Hygiene*; Notter, *Theory and Practice of Hygiene*.

## GYNÆCOLOGY.

WILLIAM M. POLK, M.D., *Professor of Clinical Surgery, Department of Gynecology.*

### *Instructors,*

CHARLES C. BARROWS, M.D., GEORGE D. HAMLEN, M.D.,  
GEORGE G. WARD, JR., M.D., LE ROY BROWN, M.D.

Instruction in gynecology is given by recitations, lectures, ward and class-room demonstrations, clinics, and laboratory demonstrations.

## CORNELL UNIVERSITY MEDICAL COLLEGE.

**Five Lectures**, upon topics of special interest and importance to the subject as a whole, will be given during the fourth year.

**Recitations** are planned to cover the entire subject, and are held one hour a week during the fourth year of the course. In order that the instruction throughout the department may be as nearly in unison as possible, a synopsis of the subject-matter of each lesson is prepared by the instructor and amended and revised by the head of the department. This is presented to the student for comparison with his text-book, to which it is an addendum. This method insures the coöperation of the head of the department in the groundwork of his subject and enables him to keep in touch with each student until his graduation.

**Class-room and Ward Demonstrations** are given to sections of the fourth-year class twice a week throughout the year. This instruction includes the examination of patients by the students, who are thereby drilled in the methods of physical diagnosis as applied to the pelvis. When necessary the patients are anæsthetized.

The routine of treatment appropriate to the various conditions found is demonstrated, the students assisting when possible. In this way, not only is familiarity acquired with normal conditions within the pelvis and the various departures from this state induced by disease, but opportunity is afforded to see and put in actual practice measures of relief and to watch the subsequent course and treatment of these cases.

Operations are performed three days every week at which the several sections are enabled to study the detail of every operation peculiar to this department.

**A General Clinic** is held once a week at which students selected in rotation are required to examine the patient, make a diagnosis, and suggest treatment. They are questioned before the class upon all these topics, as they relate to the case in hand, so as to determine the correctness of their conclusions. Should operation be called for, it is then performed.

**Laboratory Demonstrations** of secretions, discharges, and specimens obtained from patients who come under observation during this course are made to sections of the third-year class as a part of the course in clinical pathology.

# CORNELL UNIVERSITY MEDICAL COLLEGE.

## SUMMARY.

	<i>Third Year.</i>	<i>Fourth Year.</i>
Lectures . . . . .		6 hours.
Recitations . . . . .		30 hours.
Clinics . . . . .	30 hours.	30 hours.
Sections . . . . .		20 hours.

*Text-Book*—Penrose, *Gynæcology*; Findley, *Diagnosis*.

*Collateral Reading*—Dudley, *Gynæcology*; Garrigues, *Diseases of Women*.

## DISEASES OF THE GENITO-URINARY ORGANS.

SAMUEL ALEXANDER, M.D., *Professor of Clinical Surgery, Department of Diseases of the Genito-Urinary System.*

*Clinical Instructor,*

FRANCIS C. EDGERTON, M.D.

The course is required of students during the third and fourth years, and is designed to give instruction in diagnosis and treatment of the surgical diseases of the male genital and urinary organs and syphilis.

**Lectures.**—One lecture a week from the opening of the term to the first of January will be given by Professor Alexander at the college, introductory to the clinical courses, and upon syphilis.

**Clinic.**—A clinic will be given in the amphitheatre of Bellevue Hospital once each week after the first of January by Professor Alexander. At this clinic the principal operations upon the male urinary and genital organs will be performed before the class, and special attention will be given to the subject of diagnosis and post-operative management of cases. Attendance upon these clinics is required by students during the third and fourth years.

**Section Teaching at the College Dispensary.**—The third-year class will be divided into sections of small size, and instruction will be given by the Chief of Clinic and the instructors in the college dispensary. Special attention will be given in this course to the diagnosis and treatment of the venereal diseases and the use of special instruments.



## CORNELL UNIVERSITY MEDICAL COLLEGE.

The fourth-year class will be divided into sections of small size, and instruction will be given in the wards of Bellevue Hospital by Professor Alexander. This course will be devoted principally to the diseases of the urinary organs and to instruction in the use of special instruments and apparatus and the post-operative treatment of cases.

### SUMMARY.

	<i>Third Year.</i>	<i>Fourth Year.</i>
Clinics . . . . .	18 hours.	18 hours.
Sections . . . . .	15 hours.	10 hours.
Lectures . . . . .		9 hours.

*Text-Books*—White and Martin; Keyes.

*Collateral Reading*—Hyde and Montgomery; Keyes and Chetwood.

## DERMATOLOGY.

GEORGE T. ELLIOT, M.D., *Professor of Clinical Surgery, Department of Dermatology.*

### *Clinical Instructors,*

JAMES C. JOHNSTON, M.D.,

HANS J. SCHWARTZ, M.D.

Instruction in Dermatology will be given by the Clinical Professor and his assistants. No teaching will be given didactically, but the cutaneous diseases will be demonstrated on the living subject. Abundance of material for such instruction is obtainable, and the student can thoroughly familiarize himself with the more common as well as with the rarer diseases of the skin by actual personal contact and observation. Attention is particularly paid to the diagnosis and the etiology of skin diseases, but their therapeutics also receive due consideration.

### SUMMARY.

	<i>Fourth Year.</i>
Sections . . . . .	25 hours.

*Text-Books*—J. Nevins Hyde, *Dermatology*; H. Stelwagon, *Diseases of the Skin*.

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## LARYNGOLOGY AND RHINOLOGY.

CHARLES H. KNIGHT, M.D., *Professor of Clinical Surgery, Department of Laryngology and Rhinology.*

*Instructor,*

JAMES E. NEWCOMB, M.D.

*Assistants,*

FRANKLIN T. BURKE, M.D.,      WALTER C. MONTGOMERY, M.D.,  
CHARLES MACK, M.D.,      PERRY SCHOONMAKER, M.D.

Instruction in Laryngology and Rhinology is given by clinical lectures at the college by the Professor of the department. The subjects then considered are demonstrated to the fourth-year students by the instructor and by the assistants. The class is divided into sections, and each member is expected to examine patients and perform manipulations. The clinics are fully illustrated by plates and models, and, as far as possible, by clinical material.

### SUMMARY.

	<i>Fourth Year.</i>
Lectures . . . . .	8 hours.
Sections . . . . .	15 hours.

*Text-Book*—Knight, *Diseases of the Nose and Throat.*

*Collateral Reading*—Grünwald, *Atlas of Diseases of the Larynx*; Grünwald, *Atlas of Diseases of the Mouth, Pharynx, and Nose.*

## OPHTHALMOLOGY.

CHARLES STEDMAN BULL, M.D., *Professor of Clinical Surgery, Department of Ophthalmology.*

*Clinical Instructors,*

ROBERT G. REESE, M.D.,      J. HERBERT CLAIBORNE, M.D.

Instruction in Ophthalmology consists in lectures at the college building once a week, during the months of October, November,

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and December, and in sectional teaching two hours a week at the college dispensary throughout the year. The weekly lectures at the college are didactic, and consider the subjects of the external or superficial diseases of the eye, the anomalies of the ocular muscles, and the deep lesions of the eye which are not susceptible of clinical demonstration. The sectional teaching at the college dispensary is devoted partly to clinical ophthalmology and the use of the ophthalmoscope, and partly to instruction in the errors of refraction and the rudiments of the fitting of lenses. Thus the entire field of ophthalmology is covered.

### SUMMARY.

	<i>Fourth Year.</i>
Clinics . . . . .	10 hours.
Sections . . . . .	20 hours.

*Text-Book*—Noyes.

*Collateral Reading*—De Schweinitz, Swanzy, Jackson, Nettleship, Berry, May.

### OTOLOGY.

FREDERICK WHITING, M.D., *Professor of Clinical Surgery, Department of Otology.*

*Clinical Instructor,*

GEORGE B. MCAULIFFE, M.D.

*Assistants,*

EARLE CONNER, M.D.,

H. E. COOK, M.D.,

DONALD BARSTOW, M.D.,

NATHAN S. ROBERTS, M.D.

During the first third of the fourth year a systematic course of weekly lectures is given. These lectures are practical in character, including a consideration of the anatomy and physiology of the ear and the various methods of examination. Patients are shown to the class in order to familiarize the students with the symptoms and character of the more important diseases.

For clinical instruction in the dispensary, the fourth-year class is divided into sections. Each student receives practical instruction from Professor Whiting and his assistants in the examination

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of patients, the use of the otoscope, and the various methods of testing the hearing. The student is permitted to examine patients and, after a probationary period, to prescribe for them and thus gradually assume the duties of a clinical assistant. The students also have an opportunity of witnessing the more important operations in aural surgery, including intracranial complications at the New York Eye and Ear Infirmary.

### SUMMARY.

#### *Fourth Year.*

Clinics . . . . .	9 hours.
Sections . . . . .	15 hours.

*Text-Book*—Bacon, *on the Ear*.

*Collateral Reading*—Politzer, *Diseases of the Ear*; Macewen, *Pyogenic Infective Diseases of the Brain and Spinal Cord*; Whiting *The Modern Mastoid Operation*.

## ORTHOPÆDIC SURGERY.

NEWTON M. SHAFFER, M.D., *Professor of Clinical Surgery, Department of Orthopædic Surgery.*

### *Clinical Instructors,*

P. HENRY FITZHUGH, M.D.,      JOHN JOSEPH NUTT, M.D.

### *Assistants,*

HENRY SCOTT, M.D.,      DEAS MURPHY, M.D.,  
PERCY WILLARD ROBERTS, M.D.

The course of study in the Orthopædic Department includes a stated clinical lecture once a week, with detailed demonstrations in sectional work twice a week during two months of the year.

During the regular clinical course especial attention is given to the early recognition of the deforming diseases of childhood, also to the symptomatology, pathology, and differential diagnosis of chronic and progressive deformities, including the mechanical and operative treatment.

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In detail, the course consists of practical illustrations of methods of treatment, the apparatus used being thoroughly explained both in construction and in principle, attention being called to even minute points of construction and use. The operative side is fully dwelt upon, the indications for operative interference as an adjunct to the mechanical work being demonstrated. Ample clinical material is provided, and models of conventional forms of apparatus are placed at the disposal of students.

In the section and laboratory work the student is required to assist in the management of selected cases, to familiarize himself with the various methods of treatment, to construct the simpler forms of apparatus, to secure a practical knowledge of the details of construction of the more complicated instruments, and to familiarize himself with the pathological conditions existing in the deformities of childhood.

### SUMMARY.

	<i>Fourth Year.</i>
Clinics . . . . .	10 hours.
Sections . . . . .	10 hours.

*Text-Book*—Bradford and Lovett.

## RADIOGRAPHY AND RADIO-THERAPY.

ALBERT C. GEYSER, M.D., *Instructor.*

This department is equipped with the most modern implements, coils, static machines, and high-frequency apparatus.

A large clinic furnishes abundant material for the demonstration of diagnosis, therapeutics, and the taking of radiographs. Students of the fourth-year class are taught in sections and given an opportunity to become thoroughly familiar with the various electrical agents.

## SUMMARY OF THE PLAN OF INSTRUCTION.

The right is reserved to make amendments to this curriculum as experience may prove necessary.

The hours stated indicate the number of hours assigned to each student.

The total of hours devoted by each department to instruction is, of course, much in excess of these.

### FIRST YEAR.

#### Anatomy.

Lectures, one hour weekly.....	30 hours.
Demonstrations, $1\frac{1}{2}$ hours weekly.....	45 hours.
Recitations, $2\frac{1}{2}$ hours weekly.....	75 hours.
Dissection, 12 hours weekly, 16 to 20 weeks..	192 to 240 hours.

#### Physiology.

Demonstrations, 2 hours weekly.....	60 hours.
Recitations, 3 hours weekly, half term.....	45 hours.

#### Chemistry.

Recitations, 2 hours weekly.....	60 hours.
Laboratory, 4 hours weekly, 18 weeks.....	72 hours.
Laboratory, 2 hours weekly, 12 weeks.....	24 hours.

#### Physics.

Lectures, 3 hours weekly.....	90 hours.
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#### Histology.

Laboratory, 4 hours weekly.....	120 hours.
Recitations, 2 hours weekly.....	60 hours.

#### Embryology.

Lectures, 1 hour weekly, 15 weeks.....	15 hours.
Laboratory, 2 hours weekly, 15 weeks.....	30 hours.



# CORNELL UNIVERSITY MEDICAL COLLEGE.

## Electives.

Laboratory Pharmacology.  
Physiological Chemistry.  
Bacteriology.

These elective courses are open to certain advanced students, as described on page 42 of the Announcement.

In the course of the session one written review is held in the subjects recited upon. The papers are examined by the professors of the respective branches.

## SECOND YEAR.

### Anatomy.

Lectures, $2\frac{1}{2}$ hours weekly .....	75 hours.
Demonstration Lectures, 1 hour weekly, 15 weeks..	15 hours.
Demonstrations, $1\frac{1}{2}$ hours weekly, 30 weeks.....	45 hours.
Recitations, 1 hour weekly.....	30 hours.
*Dissection, 10 hours weekly, 8 to 12 weeks ....	80 to 120 hours.

### Physiology.

Demonstrations, 2 hours weekly .....	60 hours.
Recitations, 4 hours weekly, half term .....	60 hours.

### Organic and Physiological Chemistry.

Laboratory, 2 hours weekly, 18 weeks.....	36 hours.
Laboratory, 4 hours weekly, 12 weeks .....	48 hours.
Lectures, 2 hours weekly.....	60 hours.
Recitations, $1\frac{1}{2}$ hours weekly .....	45 hours.

### Pharmacology.

Laboratory, 6 hours weekly, 15 weeks.....	90 hours.
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### Bacteriology.

Laboratory, 6 hours weekly, 15 weeks.....	90 hours.
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### Histology.

Laboratory, 2 hours weekly.....	60 hours.
Recitations, 1 hour weekly, 25 weeks .....	25 hours.

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\* Total Dissection required, 312 to 320 hours.

## CORNELL UNIVERSITY MEDICAL COLLEGE.

### Pathology.

Lectures .....	10 hours.
Gross Pathology, 1 hour weekly for 15 weeks.....	15 hours.

### Medicine.

Recitations, 1½ hours weekly.....	45 hours.
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### Surgery.

Recitations, 2 hours weekly.....	60 hours.
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### Obstetrics.

Recitations, 1 hour weekly.....	30 hours.
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### Electives.

Bacteriology.

Materia Medica Recitations of the Third Year.

Manikin Course in Obstetrics.

Obstetrical Clinic.

The conditions under which certain students may avail themselves of these electives are stated on page 42 of the Announcement.

## THIRD YEAR.

### Medicine.

Lectures, 2 hours weekly, 10 weeks.....	20 hours.
Clinics, 1 hour weekly.....	30 hours.
Clinics, 1 hour weekly, 16 weeks.....	16 hours.
Recitations, 2 hours weekly.....	60 hours.
Section Work, 3 hours weekly, 10 weeks.....	30 hours.
Section Work, 1 hour weekly, 5 weeks.....	5 hours.
Section Work, 3 hours weekly, 5 weeks.....	15 hours.

### Surgery.

Lectures, 3 hours weekly, 12 weeks.....	36 hours.
Clinics, 1 hour weekly, 18 weeks.....	18 hours.
Clinics, 1 hour weekly.....	30 hours.
Clinics, 1 hour weekly, 8 weeks.....	8 hours.
Clinics, 1 hour weekly.....	30 hours.
Recitations, 2 hours weekly.....	60 hours.
Section Work, 3 hours weekly, 5 weeks.....	15 hours.
Section Work, 2 hours weekly, 5 weeks.....	10 hours.
Section Work, 3 hours weekly, 5 weeks.....	15 hours.

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## Therapeutics.

Lectures, 1 hour weekly.....	30 hours.
Lectures, 1 hour weekly, 17 weeks.....	17 hours.
Clinics, 1 hour weekly.....	30 hours.
Section Work, 1 hour weekly, 5 weeks.....	5 hours.

## Materia Medica.

Recitations, 2 hours weekly.....	60 hours.
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## Pathology.

Laboratory, 6 hours weekly.....	180 hours.
Recitations, 1 hour weekly.....	30 hours.

## Gross Pathology.

Laboratory, 2 hours weekly.....	60 hours.
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## Clinical Pathology.

Laboratory, 2 hours weekly.....	60 hours.
Recitations, 1 hour weekly, 6 weeks.....	6 hours.

## Obstetrics.

Lectures, 1 hour weekly, 30 weeks .....	30 hours.
Clinics, 1 hour weekly, 15 weeks .....	15 hours.
Recitations, 1 hour weekly.....	30 hours.
Section Work (manikin), 3 hours weekly, 5 weeks.	15 hours.

## Gynæcology.

Clinics, 1 hour weekly.....	30 hours.
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## Toxicology.

Lectures, 1 hour weekly, 20 weeks.....	20 hours.
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## Diseases of Children.

Clinics, 1 hour weekly.....	30 hours.
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## Genito-Urinary Surgery.

Clinics, 1 hour weekly, 18 weeks.....	18 hours.
Section Work, 3 hours weekly, 5 weeks.....	15 hours.

## Neurology.

Lectures .....	5 hours
Clinics, 1 hour weekly, 20 weeks.....	20 hours.
Section Work, 3 hours weekly, 5 weeks.....	15 hours.

# CORNELL UNIVERSITY MEDICAL COLLEGE.

## FOURTH YEAR.

### Medicine.

Lectures, 1 hour weekly, 10 weeks .....	10 hours.
Clinics, 1 hour weekly .....	30 hours.
Clinics, 1 hour weekly .....	30 hours.
Recitations, 1 hour weekly .....	30 hours.
Section Work, 3 hours weekly, 5 weeks .....	15 hours.
Section Work, 1 hour weekly, 5 weeks .....	5 hours.
Section Work, 4 hours weekly, 5 weeks .....	20 hours.
Section Work, 3 hours weekly, 5 weeks .....	15 hours.
Section Work, 2 hours weekly, 4 weeks .....	8 hours.
Section Work, 4 hours weekly, 5 weeks .....	20 hours.

### Surgery.

Lectures, 3 hours, 12 weeks .....	36 hours.
Clinics, 1 hour weekly, 18 weeks .....	18 hours.
Clinics, 1 hour weekly, 8 weeks .....	8 hours.
Clinics, 2 hours weekly .....	60 hours.
Section Work, 1 hour weekly, 5 weeks .....	5 hours.
Section Work, 2 hours weekly, 5 weeks .....	10 hours.
Section Work, 2 hours weekly, 5 weeks .....	10 hours.
Operative Surgery, 6 hours weekly, 5 weeks ...	30 hours.
Recitations, 1 hour weekly .....	30 hours.

### Therapeutics.

Lectures, 1 hour weekly .....	30 hours.
Clinics, 1 hour weekly .....	30 hours.
Recitations, 1 hour weekly .....	30 hours.
Section Work, 1 hour weekly, 5 weeks .....	5 hours.

### Obstetrics.

Clinics, 1 hour weekly, 15 weeks .....	15 hours.
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### Gynæcology.

Lectures, 1 hour weekly, 6 weeks .....	6 hours.
Clinics, 1 hour weekly .....	30 hours.
Section Work, 4 hours weekly, 5 weeks .....	20 hours.
Recitations, 1 hour weekly .....	30 hours.

# CORNELL UNIVERSITY MEDICAL COLLEGE.

## Gross Pathology.

Autopsies, 6 hours weekly, 5 weeks . . . . . 30 hours.

## Diseases of Children.

Clinics, 1 hour weekly . . . . . 30 hours.

Section Work, 2 hours weekly, 5 weeks . . . . . 10 hours.

## Genito-Urinary Surgery.

Lectures . . . . . 9 hours.

Clinics, 1 hour weekly, 18 weeks . . . . . 18 hours.

Section Work, 2 hours weekly, 5 weeks . . . . . 10 hours.

## Neurology.

Clinics, 1 hour weekly, 20 weeks . . . . . 20 hours.

Section Work, 1 hour weekly, 5 weeks . . . . . 5 hours.

## Psycho-pathology.

Lectures . . . . . 5 hours.

Sections . . . . . 4 hours.

Clinics . . . . . 14 hours.

## Dermatology.

Section Work, 5 hours weekly, 5 weeks . . . . . 25 hours.

## Laryngology and Rhinology.

Lectures, 1 hour weekly, 8 weeks . . . . . 8 hours.

Section Work, 3 hours weekly, 5 weeks . . . . . 15 hours.

## Ophthalmology.

Lectures, 1 hour weekly, 10 weeks . . . . . 10 hours.

Section Work, 4 hours weekly, 5 weeks . . . . . 20 hours.

## Otology.

Clinics, 1 hour weekly, 9 weeks . . . . . 9 hours

Section Work, 3 hours weekly, 5 weeks . . . . . 15 hours.

## Orthopædic Surgery.

Clinics, 1 hour weekly, 10 weeks . . . . . 10 hours.

Section Work, 2 hours weekly, 5 weeks . . . . . 10 hours.

## Radiography.

Section Work, 2 hours weekly, 3 weeks . . . . . 6 hours.

## EXAMINATIONS.

### REQUIREMENTS FOR ADVANCEMENT IN COURSE.

Students are advanced in course from one year to the next upon passing examinations in the work of that year, but examinations in major or minor subjects may, at the discretion of the Head of the Department, include all the work previously covered in the year or years preceding the examinations in question. There is, however, no unnecessary repetition of subjects taught from year to year. Students who have not succeeded in passing all their examinations will be allowed to enter upon the next year's studies, provided they pass examinations in the subjects failed in at the beginning of the session.

Examinations for advancement in course, graduation, and admission to advanced standing are held at the close of the year. In each laboratory course extending through a part of the year only, the examination is held at the close of the course.

Examinations for conditioned students and those desiring admission to advanced standing, who have not taken the spring examinations, are held during the week preceding the opening of the college.

The subjects examined upon are divided into major and minor subjects, and a standing of 75 per cent. is required to pass.

The minor subjects embrace laboratory courses and those in which instruction is given by recitations only.

### Subjects of Examination for Admission to the Second Year.

Major Subjects. .Anatomy (except the nervous system, viscera, and organs of special sense).

Physics.

Inorganic Chemistry (including laboratory work).

Physiology (except the nervous system, embryology, and organs of special sense).



## CORNELL UNIVERSITY MEDICAL COLLEGE.

Minor Subjects..Histology (except the nervous system and organs of special sense).

Embryology.

Conditions allowed (at the spring examinations): 1 Major and 1 Minor; or 2 Minor.

NOTE 1. In each of the laboratory courses of the first and subsequent years, students whose marks fall between 60 and 75 per cent. will be allowed one reëxamination within two weeks of the completion of the course, failing in which they must repeat the laboratory course with the next succeeding section.

Students whose marks fall below this percentage in the chemical laboratory cannot be reëxamined, but must repeat the course with the next succeeding section.

NOTE 2. In each of those branches in which recitations are held throughout the year, there shall be a written review conducted by the instructors and supervised by the professor in charge of the department, and also a final written review conducted by the professor himself at the close of the year. The written reviews conducted by the instructors shall be held as soon as possible after the return from the Christmas recess, and shall count as a single recitation, the object being to ascertain the knowledge acquired by the student.

NOTE 3. *All conditions must be successfully passed before entrance into the next succeeding year will be allowed.*

### Subjects of Examination for Admission to the Third Year.

Major Subjects..Anatomy.

Organic and Physiological Chemistry.

Physiology.

Minor Subjects..Medicine.

Surgery.

Obstetrics.

Bacteriology.

Normal Histology (central nervous system and organs of special sense).

Pharmacology.

Laboratory Organic Chemistry.

Conditions allowed: 1 Major and 1 Minor; or 2 Minor subjects.  
(See Notes 1, 2 and 3 above.)

### Subjects of Examination for Admission to the Fourth Year.

Major Subjects..Materia Medica.

Pathology.

## CORNELL UNIVERSITY MEDICAL COLLEGE.

Minor Subjects..Obstetrics.

Medicine.

Surgery.

Toxicology.

Clinical Pathology.

Pediatrics. } Clinical Paper.

Neurology. }

Gross Pathology.

Conditions allowed: 1 Major and 1 Minor; or 2 Minor.

(See Notes 1, 2 and 3, page 89.)

### Subjects of Examination for Graduation at the End of the Fourth Year.

Major Subjects..Medicine.

Surgery.

Therapeutics.

Obstetrics and Gynæcology.

Minor Subjects..Hygiene.

Ophthalmology.

Neurology.

Laryngology and Rhinology.

Orthopædics.

Pediatrics.

Psycho-pathology.

Otology.

Dermatology.

Genito-Urinary Diseases.

The examinations in the major subjects are allowed two hours, and in the minor subjects one hour each.

If any student fails to pass in not more than one major, or in two minor subjects, an examination may be allowed within two weeks, and if the candidate is then successful the degree will be conferred at the later Commencement at Ithaca.

If the candidate fails to pass in any subject at this second examination the work of the fourth year must be repeated.

### Requirements for Graduation.

1. Candidates for the degree of doctor of medicine must have studied medicine for four full years in an accredited medical

## CORNELL UNIVERSITY MEDICAL COLLEGE.

college, and the fourth year at least must have been spent in the Cornell University Medical College.

2. Candidates must present satisfactory evidence of good moral character and of being not less than twenty-one years of age.

3. Candidates must file with the Secretary of the Faculty the Cornell Regents' medical-student certificate as evidence of having complied with the requirements for admission.

4. Candidates must have dissected at least seven parts in anatomy (see page 47). They must, further, have taken the regular course of two weeks in practical obstetrics, and a certificate covering this course must be filed at the Secretary's office before registration for the final examinations, which begin about the middle of May.

5. In addition to the yearly examinations above specified for advancement in course, candidates must pass at the end of the fourth year examinations in medicine, surgery, therapeutics, obstetrics, and gynæcology, and the special branches which are specified on page 90.

6. Candidates rejected at the final examination will not be re-examined until after having repeated their fourth year of study.

Before being readmitted to the fourth year the candidate must pass a satisfactory examination in anatomy, physiology, chemistry and physics, and materia medica.

7. The degree will not be conferred upon any candidate who absents himself from the public Commencement without the special permission of the Faculty.

8. The Faculty reserves the right to terminate the connection of any student with the institution *at any time* on the ground of what they may deem moral or mental unfitness for the profession, or improper conduct while connected with the College.

Final Examination in the Subjects of the First and Second Years.

A law passed at the last session of the legislature permits students to take part of their examinations for the license to practice medicine in this State at the end of the second year.

For the full text of the law see page 35, this catalogue.

REQUIREMENTS FOR LICENSE TO PRACTICE  
MEDICINE IN THE STATE OF NEW YORK.

*All requirements for admission should be filed at least one week before examination.*—They are as follows:

1. Evidence that applicant is more than twenty-one years of age (Form 1).

2. Certificate of moral character from not less than two physicians in good standing (Form 1).

3. Evidence that applicant has the general education required preliminary to receiving the degree of bachelor or doctor of medicine in this State (medical-student certificate. See examination handbook).

4. Evidence that applicant has studied medicine not less than four full school years of at least nine months each, in four different calendar years, in a medical school registered as maintaining at the time a satisfactory standard. New York medical schools and New York medical students shall not be discriminated against by the registration of any medical school out of the State, whose minimum graduation standard is less than that fixed by statute for New York medical schools.

*First exemption:* "The Regents may in their discretion accept as the equivalent for any part of the third and fourth requirement, evidence of five or more years' practice of medicine, provided that such substitution be specified in the license."

5. Evidence that applicant "has received the degree of bachelor or doctor of medicine from some registered medical school, or a diploma or license conferring full right to practice medicine in some foreign country" (Form 2 of original credentials).

6. The candidate must pass examinations in anatomy, physiology and hygiene, chemistry, surgery, obstetrics, pathology and diagnosis, therapeutics, practice, and materia medica. The questions "shall be the same for all candidates, except that in therapeutics, practice, and materia medica all the questions submitted to any candidate shall be chosen from those prepared by the board selected by that candidate, and shall be in harmony with the tenets of that school as determined by its State Board of Medical Examiners."

## CORNELL UNIVERSITY MEDICAL COLLEGE.

*Second exemption:* "Applicants examined and licensed by other State examining boards registered by the Regents as maintaining standards not lower than those provided by this article, and applicants who matriculated in a New York State medical school before June 5, 1890, and who received the degree of M.D. from a registered medical school before August 1, 1895, may, without further examination, on payment of \$10 to the Regents, and on submitting such evidence as they may require, receive from them an indorsement of their licenses or diplomas, conferring all rights and privileges of a Regents' license issued after examination."

7. A fee of \$25 payable in advance.

Examinations for license to practice medicine in this State will be held as follows:

	1906.	1907.	1908.
Winter	Jan. 30–Feb. 2	Jan. 29–Feb. 1	Feb. 4–7
Spring	May 22–25	May 21–24	May 19–22
Summer	June 19–22	June 25–28	June 23–26
Autumn	Sept. 25–28	Oct. 1–4	Sept. 22–25
	1909.	1910.	
Winter	Feb. 2–5	Feb. 1–4	
Spring	May 18–21	May 24–27	
Summer	June 22–25	June 28–July 1	
Autumn	Sept. 21–24	Sept. 27–30	

### *Places.*

New York, Albany, Syracuse, Buffalo.

### DIPLOMAS OF LICENTIATE OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON AND MEMBERSHIP OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Graduates of the Cornell University Medical College are admitted to the final examination for the diploma of Licentiate of the Royal College of Physicians of London and Membership of the Royal College of Surgeons of England, upon presenting proper certificates that certain conditions applicable to the foreign universities and colleges which are recognized by the examining board have been complied with.

Further information may be obtained from the Secretary of the Board (Mr. F. G. Hallett) at the Examination Hall, Victoria Embankment, London, W. C.



## CORNELL UNIVERSITY MEDICAL COLLEGE.

### Prizes.

In commemoration of John Metcalfe Polk, an Instructor in this College, who graduated from the Medical Department of Cornell University on June 7th, 1899, and died on March 29th, 1904, an annual prize of \$500 will be presented at each Commencement to the members of the Graduating Class who have completed the full course of study in Cornell University Medical College.

This prize will be awarded as follows:

To the student having the highest standing.....\$300

To the student having the second highest standing....\$125

To the student having the third highest standing.....\$75

Two prizes, one of \$50 and another of \$25, are offered by Professor Dana to the students of the graduating class, to be designated by him, who make the two best reports of neurological cases.

### Hospital Appointments.

The students and graduates of the Cornell University Medical College are entitled to compete on equal terms with those of other colleges for positions on the resident staff of Bellevue and the other hospitals of the city.

Some of these hospitals are: The City, Harlem, Gouverneur, New York, St. Luke's, Presbyterian, St. Vincent's, St. Francis', Mount Sinai, German and Hudson Street hospitals, New York Eye and Ear Infirmary, and the hospitals in Brooklyn and Jersey City, Newark, Paterson, etc.

The requirements, the times of examination, and the period of service differ. The details can be learned by application, written or in person, to the superintendents or to the secretaries of the medical boards of the various hospitals.

### Special Courses.

The Medical Department will continue the System of Special Courses which has proved of advantage.

The courses are designed primarily for advanced students or for workers in specialized lines of research or for post-graduates. They are scheduled to begin at various times, and to continue about six weeks. These courses include different portions of the subjects of normal histology; clinical, gross, and histological pathology; bacteriology, chemistry, anatomy, and operative surgery.



## CORNELL UNIVERSITY MEDICAL COLLEGE.

A pamphlet giving full details can be obtained by application to the Secretary of the College.

### Suggestion.

*It would be to the advantage of students if they would register a few days in advance of the opening exercises, secure boarding-places, and purchase books, so that their studies may not be interrupted in the beginning. The Secretary's office is open every day after September, from 10 A.M. to 5 P.M.*

### TEXT-BOOKS.

As a rule, only the latest editions of text-books should be purchased.

*Anatomy*—Text-Book, Gerrish, second edition, \$6.50; Reference Works, Morris, \$6.00; Gray, \$5.50; Quinn, \$25.20; Woolsey, *Surgical Anatomy*, \$5.00; Haynes, *Manual of Anatomy*, \$2.50; Cunningham, *Text-Book of Anatomy*; Toldt, *Atlas of Human Anatomy*, \$18.00.

*Bacteriology*—Muir and Ritchie, *Manual of Bacteriology*, \$3.75.

*Chemistry*—Witthaus, *Manual of Chemistry*, fifth edition, \$3.50; Wolf, *Laboratory Handbook*, \$1.25; Ganot, *Physics*, \$4.00; Riggs, *Laboratory Chemistry*, \$1.00.

*Dermatology*—J. Nevins Hyde, \$4.50; H. Radcliffe Crocker, third edition, \$5.00; H. Stelwagon, \$6.00.

*Diseases of Children*—Henry Ashby, M.D., *The Diseases of Children*, fifth edition; Starr, *An American Text-Book of the Diseases of Children*, \$7.00; Rotch, *Pediatrics*, \$6.00.

*Genito-Urinary*—White and Martin, \$6.00; Hyde and Montgomery, \$4.00; Keyes and Chetwood, \$2.75.

*Gynecology*—Penrose, \$3.75; Dudley, \$5.00; Garrigues, *Diseases of Women*, \$4.50.

*Histology*—Ferguson, *Text-Book of Histology*, \$4.00; Bohm, Davidoff, and Huber, *Text-Book of Histology*, \$3.50.

*Hygiene*—Egbert, *Hygiene and Sanitation*, \$2.25; Notter, *Theory and Practice of Hygiene*, \$7.00.

*Laryngology and Rhinology*—Knight, *Diseases of the Nose and Throat*, \$3.00; Grünwald, *Atlas of Diseases of the Larynx*, \$2.50; Grünwald, *Atlas of Diseases of the Mouth, Pharynx, and Nose*, \$3.00.

## CORNELL UNIVERSITY MEDICAL COLLEGE.

*Materia Medica and Therapeutics*—Butler, *Text-Book of Materia Medica, Therapeutics, and Pharmacology*, \$4.00; Coleman, *Syllabus of Materia Medica*, \$1.90; Hare, *Practical Therapeutics*, \$4.00; Thompson, *Practical Dietetics*, \$5.00; Wilson, *American Text-Book of Applied Therapeutics*, \$7.00; Hatcher, *A Text-Book of Materia Medica*, \$2.00.

*Medicine*—Polk, *Physical Diagnosis*, \$1.50; Salinger-Kalteger, *Modern Medicine*, \$4.00; Musser, *Medical Diagnosis*, \$6.00; Thompson, *Practical Medicine*, \$5.00; for reference, Loomis-Thompson, *American System of Practical Medicine*, \$24.00.

*Nervous Diseases*—Dana, *Diseases of the Nervous System and Psychiatry*, \$4.00; Gower, *Diseases of the Brain and the Spinal Cord*, \$8.00; Dercum, \$6.00; Obersteiner, *Anatomy of the Nervous System*, \$5.50.

*Obstetrics*—Edgar, *Practice of Obstetrics*, \$6.00.

*Ophthalmology*—Noyes, \$5.00; De Schweinitz, \$4.00; Swanzy, \$2.50; Jackson, \$2.50; Nettleship, \$3.00.

*Orthopædic Surgery*—Bradford and Lovett, \$4.50.

*Otology*—Politzer, *Diseases of the Ear*, \$7.00; Macewen, *Pyogenic Infective Diseases of the Brain and Spinal Cord*, \$4.00.

*Pathology*—Delafield and Prudden, *Pathological Anatomy and Histology*, \$5.00; Orth, *Pathological Diagnosis* (Trans. of Sydenham Society); Zeigler, *General Pathology*, \$5.00.

*Clinical Diagnosis*—V. Jaksch, \$6.50; Simon, \$4.00; Ewing, *Pathology of the Blood*, \$3.50.

*Physiology*—Flint, *Handbook of Physiology*, fifth edition, 1905; Kirke's *Handbook of Physiology*, nineteenth edition, \$3.00; Stewart, \$3.75; Foster, \$3.60; Schäffer, \$18.00.

*Psychopathology*—Dana, *Nervous Diseases and Psychiatry*, \$4.00; Patton, *Psychiatry*, \$4 00.

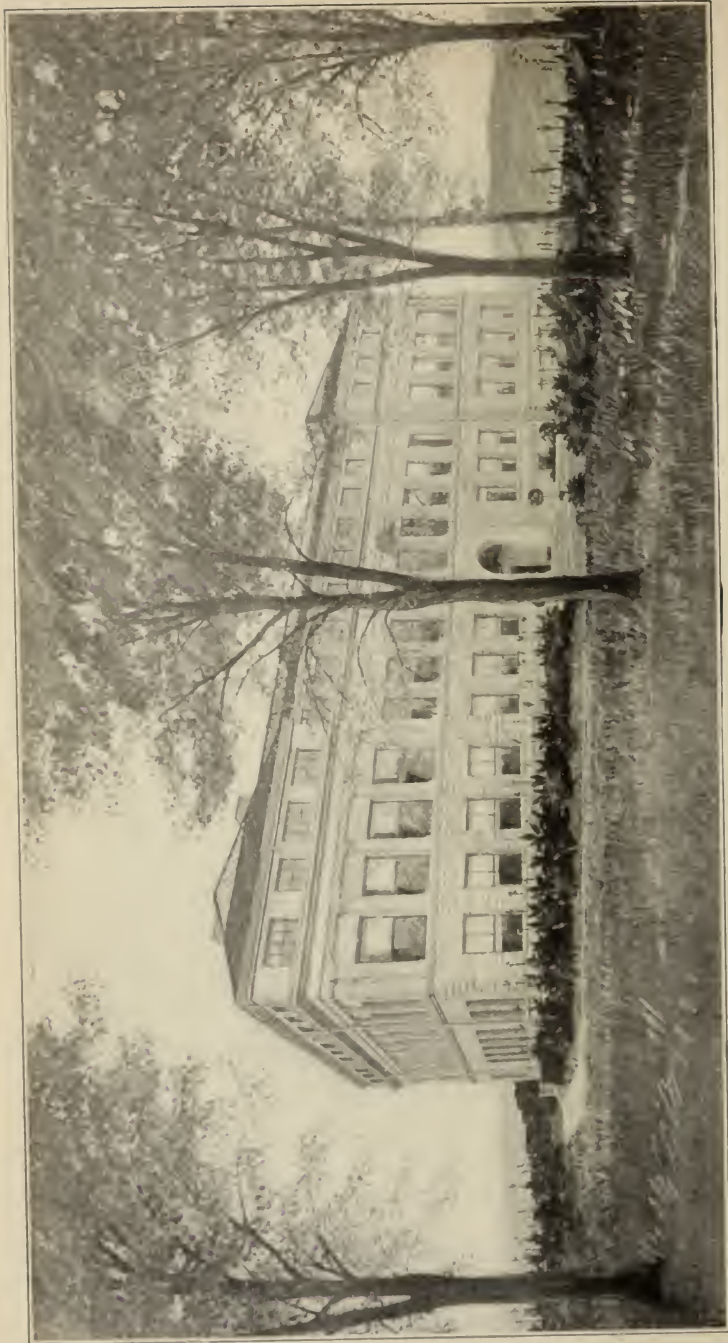
*Surgery*—Tillmann, 3 vols., \$15.00; *American Text-Book*, \$7.00; Parks, *Surgery*, \$6.00; Stimson, *Fractures and Dislocations*, \$5.00; Stimson, *Operative Surgery*, \$3.00; Dennis, *System of Surgery*, \$6.00 per volume.

Gould, *Student's Medical Dictionary*, \$2.50.

Dissecting Cases—\$2.00 to \$5.00.

Text-books, etc., may be obtained from the Clerk at the college.

ITHACA DIVISION



STIMSON HALL

## FACULTY OF MEDICINE AT ITHACA.

BURT GREEN WILDER, B.S., M.D.,

*Professor of Neurology and Vertebrate Zoölogy.*

EDWARD LEAMINGTON NICHOLS, B.S., Ph.D.,

*Professor of Physics.*

SIMON HENRY GAGE, B.S.,

*Professor of Histology and Embryology.*

VERANUS ALVA MOORE, B.S., M.D.,

*Professor of Comparative Pathology and Bacteriology.*

LOUIS MUNROE DENNIS, Ph.B., B.S.,

*Professor of Inorganic Chemistry.*

WILLIAM RIDGELY ORNDORFF, A.B., Ph.D.,

*Professor of Organic and Physiological Chemistry.*

ERNEST GEORGE MERRITT, M.E.,

*Professor of Physics.*

ABRAM TUCKER KERR, B.S., M.D.,

*Professor of Anatomy.*

GEORGE SYLVANUS MOLER, A.B., B.M.E.,

*Assistant Professor of Physics.*

BENJAMIN FREEMAN KINGSBURY, Ph.D., M.D.,

*Assistant Professor of Physiology.*

EMILE MONNIN CHAMOT, B.S., Ph.D.,

*Assistant Professor of Sanitary Chemistry and Toxicology.*

JOHN SANDFORD SHEARER, B.S., Ph.D.,

*Assistant Professor of Physics.*

ERNEST BLAKER, B.S., Ph.D.,

*Assistant Professor of Physics.*

## FACULTY OF MEDICINE AT ITHACA.

EUGENE BAKER, B.S., M.D.,

*Lecturer on Obstetrics and Practice of Medicine.*

MARTIN BUEL TINKER, B.S., M.D.,

*Lecturer on Surgery.*

SAMUEL HOWARD BURNETT, A.B., M.S., D.V.M.,

*Instructor in Comparative Pathology and Bacteriology.*

HUGH DANIEL REED, B.S., Ph.D.,

*Instructor in Systematic and Economic Zoölogy.*

GERSHOM FRANKLIN WHITE, B.S., Ph.D.,

*Instructor in Pathology and Bacteriology.*

ARTHUR WESLEY BROWNE, M.S., Ph.D.,

*Instructor in Chemistry.*

RALPH CUTHBERT SNOWDON, A.B.,

*Instructor in Chemistry.*

ELGIN ANGUS GRAY, B.A., M.B.,

*Instructor in Anatomy.*

OMAR RAY GULLION, A.M.,

*Instructor in Pharmacology and Physiology.*

MERVIN DRESBACH, M.S., M.D.,

*Instructor in Physiology.*

THOMAS DELBRIDGE, A.B.,

*Instructor in Chemistry.*

HARRY CLIFFORD LUKE, Ph.G.,

*Assistant in Pharmacology and Physiology.*

JOSEPH H. HATHAWAY, A.M., M.D.,

*Assistant Demonstrator of Anatomy and Assistant in Histology and Embryology.*

WILLIAM FREDERICK JELKE, Ph.B., M.D.,

*Assistant Demonstrator of Anatomy.*

OTTO LOUIS GOEHLE, A.B., M.D.,

*Assistant Demonstrator of Anatomy.*



## FACULTY OF MEDICINE AT ITHACA.

EFFIE ALBERTA READ, A.B.,

*Assistant in Histology and Embryology.*

CASSIUS WAY, B.AGR.,

*Assistant in Bacteriology and Pathology.*

WESLEY MANNING BALDWIN,

*Assistant in Anatomy.*

JOHN WILLIAM TURRENTINE, Ph.B., M.S.,

*Assistant in Chemistry.*

GEORGE COOKE ROBERTSON, A.B.,

*Assistant in Chemistry.*

JOSEPH JULIUS FRANK, A.B.,

*Assistant in Chemistry.*

FRANK HAWKINS, A.B.,

*Assistant in Chemistry.*

BURTON JUSTUS RAY, A.B.,

*Assistant in Chemistry.*

MAXIMILLAN C. ALBRECH, A.B.,

*Assistant in Chemistry.*

JOHN ALEXANDER BLACK, A.B.,

*Assistant in Chemistry.*

EARL VINCENT SWEET, A.B.,

*Assistant in Histology and Embryology.*

WINFRED BERDELL MACK, D.V.M.,

*Assistant in Pathology and Bacteriology.*

ALBERT HAZEN WRIGHT, A.B., A.M.,

*Assistant in Vertebrate Zoölogy and Comparative Anatomy.*

JESSE RANDOLPH PAWLING, A.B.,

*Assistant in Histology and Embryology.*

ABRAM T. KERR, B.S., M.D.,

*Secretary of the Medical Faculty at Ithaca.*

# INSTRUCTION AT ITHACA

DURING THE FIRST TWO YEARS OF THE COURSE.

## CALENDAR FOR ITHACA.

### First Term, 1906-1907.

September 25th, Tuesday.—Academic year begins; matriculation of new students; University scholarship examinations begin.

September 26th, Wednesday.—Matriculation of new students.

September 27th, Thursday.—Registration of matriculated students.

September 28th, Friday.—Instruction begins in all departments of the University at Ithaca. President's annual address to students at 12 M.

December 21st, Friday.—Christmas recess begins.

January 2d, Wednesday.—Work resumed.

January 11th, Friday.—Founder's Day.

January 30th, Wednesday.—First term closes.

### Second Term.

February 2d, Saturday.—Registration for the second term.

March 23d, Saturday.—Easter recess begins.

April 2d, Tuesday.—Work resumed.

June 13th, Thursday.—Instruction ends.

June 20th, Thursday.—Thirty-sixth annual Commencement.

### General Statement.

From its very foundation Cornell University has offered special courses for students preparing for the study of Medicine; first in the Natural History course, and later also in a special two-year Medical Preparatory course. In 1898, the Medical College was established in New York City with a four-years' course. At the same time the work of the first two years was duplicated at the University in Ithaca, since many of the fundamental scientific subjects of which this part of the course mainly consists were already provided for in the long established departments of Botany, Zoölogy, Comparative Anatomy,

## CORNELL UNIVERSITY MEDICAL COLLEGE.

Physics, Chemistry, Physiology, Histology, Embryology, and Bacteriology. The courses in these departments were modified where necessary and additional courses were added so as to make the work at Ithaca fully equivalent to the first two years in New York City.

Among the facilities of the University of special value to the Medical College may be mentioned the museums of Vertebrate and Invertebrate Zoölogy, including Entomology and Comparative Anatomy, of Agriculture, of Botany, of Geology, and of Veterinary Medicine. The University Library, with its 315,000 bound volumes, 48,000 pamphlets, and over 2,000 current periodicals and transactions, is as freely open to medical students as to other University students.

Through the generosity of the late Dean Sage, of Albany, the University has been enabled to erect a building especially designed for anatomy, histology, embryology, and physiology. The building is constructed of Ohio sandstone. The general form is that of an E, 157 feet long and 50 feet wide, with wings 40 feet square.

In the cellar are the cold-storage, embalming, and cremating rooms and store-rooms, and a large room forty feet square for aquaria, projection, etc.

In the basement are the ventilating and cold-storage machinery, a large lecture room, a recitation room, and an office for the departments of surgery, medicine, and obstetrics, besides the lower part of the large amphitheatre.

On the first floor are located the cloak rooms for men and women, college office, library, faculty room, office, and private laboratory for histology, two recitation rooms, upper part of the large amphitheatre, and assembly room.

The second floor is devoted to the departments of histology and physiology, each with a large general laboratory, a research laboratory, preparation rooms, and the private laboratories for the staff of instruction.

The third floor consists of the general and special dissecting rooms, study rooms, and amphitheatre, besides rooms for the staff.

The attic is utilized for photography, macerating the skeletons, and for storage.

The air in the building is constantly changed by forced ventilation. The lighting is especially good in all the rooms.

# DEPARTMENTS, METHODS, AND FACILITIES.

## ANATOMY.

ABRAM T. KERR, B.S., M.D., *Professor.*

ELGIN A. GRAY, B.A., M.B., *Instructor.*

JOSEPH H. HATHAWAY, A.M., M.D., *Assistant Demonstrator.*

WILLIAM F. JELKE, Ph.B., M.D., *Assistant Demonstrator.*

OTTO L. GOEHLE, A.B., M.D., *Assistant Demonstrator.*

WESLEY M. BALDWIN, *Assistant.*

Anatomy is given in both the first and second years and is mostly concentrated into the first term. This gives a large amount of continuous time for the subject, which consists mainly of practical work in the laboratory. Each student is independent of the others, and those with special training or ability are encouraged to do more than the required work. Personal quizzes and demonstrations are given upon each stage of the work. In addition to this, there are frequent recitations and demonstrations to small sections of the class. The students are encouraged to make careful notes and drawings of the conditions which they find in their specimens. To facilitate the drawings, outline record charts are furnished. Clay also is provided for modelling bones and other parts. The department is well equipped with models and special preparations. These are for use in the demonstrations and also for the personal use of students in the laboratory.

There is plenty of dissecting material, which is embalmed and kept in cold storage so as to be ready for use when needed. In the two years the student is required to make at least one complete satisfactory dissection of the human body. The work is distributed as follows:

In the first year, thirty-two and a half hours per week are given to Anatomy. A complete disarticulate skeleton is loaned to each group of two students. The vertebræ and ribs and the bones of the upper extremity are studied first, and when these are finished the dissection of the upper extremity is begun. Upon completing the study of this first part, the bones and then the soft parts of the head except the

## CORNELL UNIVERSITY MEDICAL COLLEGE.

brain are taken up. The lower extremity is studied in a similar manner. As a preparation for the second term's work in Histology and Physiology an elementary course of demonstrations on the gross anatomy of the viscera is given near the end of the term.

In the second year, first term, twenty-five hours a week are devoted to laboratory work. The thoracic and abdominal viscera and central nervous system are dissected. The work on the viscera is given in the first part of the term, and the dissection is accompanied by special recitations and demonstrations to small groups. The gross anatomy of the central nervous system comes in the latter part of the term. In the second term of the second year, five demonstrations or recitations each week on topographical and regional anatomy are given to small sections of the class. In these the work of the preceding two years is reviewed, dissections are shown, and the practical bearing of Anatomy on Medicine and Surgery is particularly emphasized.

Those who satisfactorily complete the required work and others properly qualified may do advanced or research work.

**1. Anatomy.**—Laboratory work with section demonstrations and recitations, thirty-two and a half actual hours weekly from September to February. Course 1 is required of first-year students in Medicine. Professor Kerr, Instructor Gray, Assistant Demonstrators Hathaway, Jelke, and Goehle.

**2. Anatomy.**—Laboratory work with section demonstrations and recitations, twenty-two and a half actual hours weekly. September to February. Professor Kerr, Instructor Gray, Assistant Demonstrators Hathaway, Jelke, and Goehle. Course 2 is required of second-year students in Medicine.

**3. Topographical and Regional Anatomy.**—Section demonstrations five hours weekly. February to June. (Required of second-year students in Medicine.)

**4. Thoracic and Abdominal Viscera.**—Section demonstrations two and a half hours weekly. (Required of second-year students in Medicine.) September to February. Dr. Hathaway.

**6. Advanced and Research Work.**—Laboratory work, elective, eight or more actual hours per week. Professor Kerr and Instructors.

**8. Structure, Development, and Physiology of the Nervous System and the Organs of Sense.**—Credit, three hours. Second year. Professors Gage, Kerr, and Kingsbury.



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The course consists of three parts: (A) Gross anatomy with special reference to medicine and surgery, Dr. Kerr; (B) Histology and development, Professor Gage; (C) Physiology, Dr. Kingsbury.

The instruction in each part consists of laboratory work, demonstrations or lectures, and recitations. The gross anatomy, histology, and development are given together during the latter part of the first term, and are immediately followed by the Physiology in the first part of the second term.

### HISTOLOGY AND EMBRYOLOGY.

SIMON HENRY GAGE, B.S., *Professor.*

EFFIE ALBERTA READ, A.B., *Assistant.*

JOSEPH H. HATHAWAY, A.M., M.D., *Assistant.*

EARL V. SWEET, A.B., *Assistant.*

JESSE R. PAWLING, A.B., *Assistant.*

As indicated by the following courses, this department offers elementary and advanced instruction in the theory and use of the microscope and its accessories, in photo-micrography, in vertebrate histology, and vertebrate embryology; and opportunities for research in all of these subjects.

The material equipment consists of a good supply of modern microscopes, while camera-lucidas, polariscopes, micro-spectroscopes, photo-micrographic cameras, microtomes and other special apparatus are in sufficient numbers to give each student opportunity for personally learning to use them, and for applying them to any special study in which they are called for. Two projection microscopes are available for class demonstrations and for making the drawings used in wax-plate reconstruction. The collection of histologic and embryologic specimens is extensive and constantly increasing.

The rooms for the use of the department are on the first and second floors of Stimson Hall. They are almost perfectly lighted and consist of a large general laboratory, an advanced laboratory, a preparation room, and two laboratories for the instructing staff, where also special demonstrations of difficult subjects are given to small groups of students.

The aim of the department is to bring the student into direct contact with the truths of nature, and hence, while there are demonstra-



## CORNELL UNIVERSITY MEDICAL COLLEGE.

tion lectures to give broad and general views, there is a large amount of laboratory work in which the facts are learned at first hand, and the methods and manipulations necessary for acquiring the facts are practiced by each student. It is recognized that less ground can be covered in a given time in this way, but it is believed, and experience has confirmed the belief, that the intellectual independence and power to acquire knowledge direct from nature which is gained by this personal work is of far higher value than the facts and theories that might be learned in the same time from books and lectures alone, or from specimens prepared by some other individual.

This lake region with its rich and varied fauna is especially favorable for investigations in the histology and embryology of all the main groups of vertebrates; and the proximity of the abattoirs in the city makes it possible to obtain material for the study of the development of the sheep, cow, and pig. The clinic and veterinary department supply material for the embryology of the cat and dog, so that the opportunities for research upon the development of the domestic animals are excellent. Every encouragement is given for the fullest utilization of these opportunities.

**1. Microscopy, Histology, and Embryology.**—Second half-year. Credit, 8 University hours. The instruction is given in two recitations, twelve hours of laboratory work, and one or more lecture-demonstrations, weekly during the second half-year. Professor Gage and Assistants Read, Hathaway, Sweet, and Pawling.

**Microscopy.**—The aim is to give a working knowledge of the theory and use of the microscope and its accessories, methods of mounting microscopical specimens, etc. It serves as a basis for all subsequent work of the department. First two weeks.

**Histology.**—This includes the study of the fine anatomy of man and of the domestic animals, and also the fundamental methods of histologic investigation and demonstration. This work continues seven weeks.

**Embryology.**—This deals with the elements and methods of embryology in the amphibia, in the domestic animals, especially the chick and the pig, and in man. This work continues seven weeks.

**2. Vertebrate Histology and Embryology.**—Second term. Credit, 4 University hours (ten actual hours of work per week). This

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course consists of laboratory work, lectures, demonstrations, and recitations. It is designed for students of biology and of medicine. Special attention is given to the elements of the subject and to methods of preparation, including serial sectioning and modeling. Professor Gage.

4. **Advanced Work in Histology and Embryology.**—Laboratory, eight or more actual hours per week with seminary throughout the year. This course is designed for those preparing theses for the baccalaureate or advanced degrees and for those wishing to undertake special investigations in histology and embryology. Special instruction will be given in the theory and manipulation of the more important and difficult accessories of the microscope, *e.g.*, the micro-spectroscope, the micro-polariscope, and the apertometer. The use and application of the projection microscope and of photo-micrographic apparatus will be learned by each student, in abundant practical experiments. Professor Gage.

Course 4 is open only to those who have taken Course 1 or 2, or its equivalent in some other university. Drawing (Course 12c, in Freehand Drawing, or its equivalent) and a reading knowledge of French and German are indispensable for the most successful work in this course.

Subjects for theses should be decided upon as early as possible so that material in suitable stages of development and physiologic activity may be prepared.

7. **Seminary.**—Hours to be arranged. At the seminary, there will be presented reports of special methods and the results of advanced work. Professor Gage.

8. **Structure, Development, and Physiology of the Nervous System and the Organs of Sense.**—Credit, 3 hours. Second year. Professors Gage, Kerr, and Kingsbury.

The course consists of three parts: (*a*) Gross Anatomy with special reference to medicine and surgery, Dr. Kerr; (*b*) Histology and Development, Professor Gage; (*c*) Physiology, Dr. Kingsbury.

The instruction in each part consists of laboratory work, demonstrations or lectures, and recitations. The gross anatomy, histology, and development are given together during the latter part of the first term and are immediately followed by the physiology in the first part of the second term. Course 1 is required of

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first-year students; Course 8 of second-year students in Medicine.

NOTE.—For the work of this department the student will find a knowledge of Latin and Greek of the greatest advantage. A year's study of Latin, three to five recitations per week, and of Greek, Goodell's Greek in English, or Coy's Greek for beginners, would represent the minimum amount needed. For all courses, the ability to draw well freehand and a good reading knowledge of French and German are desirable, and for research work almost indispensable.

### NEUROLOGY.

BURT GREEN WILDER, B.S., M.D., *Professor.*

HUGH DANIEL REED, B.S., Ph.D., *Instructor.*

ALBERT HAZEN WRIGHT, A.B., A.M., *Assistant.*

**Neurology, Course 3.**—Second term of the second year. One lecture per week, and one practicum or demonstration. In the lectures are considered (a) the principal modifications of the vertebrate brain; (b) the structure and peculiarities of the human brain; (c) the cerebral fissures as criteria of zoölogic or racial affinity, as indexes of physical or mental quality or power, and as boundaries of the cortical areas. At the practicums representative vertebrate brains are compared; the sheep's brain is dissected and with it are compared the brains of the cat, dog, rabbit, and monkey; preserved dissections of the human brain are examined. All specimens are drawn. There is given a demonstration of the methods of removing and preparing the human brain for the elucidation of morphologic points. For the illustration of this course there are numerous diagrams representing actual preparations of the brains of man and other vertebrates. The neurologic division of the museum comprises about 1,600 preparations, distributed as follows, in round numbers: Human adults and children, 430; human embryos, fetal and at birth, 218; apes and monkeys, 292; other mammals, 420; other vertebrates, 240. The members of the class have at all times free access to the lecture room, where are kept standard manuals, treatises, and monographs. Opportunities for research are offered. Credit, 2 hours.

For other courses in Neurology, see University Register.

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## PHYSIOLOGY.

BENJAMIN FREEMAN KINGSBURY, Ph.D., M.D., *Assistant Professor.*

MELVIN DRESBACH, M.S., M.D., *Instructor.*

OMAR RAY GULLION, M.A., *Instructor.*

HARRY CLIFF LUKE, Ph.G., *Assistant.*

The work in the Department is carried on by means of lectures, demonstrations, laboratory work, and recitations. The laboratory course is intended to introduce the student to methods of laboratory work in Physiology, to have him become acquainted with certain fundamental facts at first hand and to learn to draw conclusions from the facts. The part of Physiology so taken up in the laboratory covers the Physiology of muscle, nerve, heart and circulation, blood (in part), eye, and central nervous system. Special stress is laid on the points and apparatus of importance in later clinical work.

The recitations cover the entire field of Physiology. Numerous demonstrations are given in the laboratory to supplement the lecture-demonstrations and student experiments.

The lectures are intended to unify the work of the Department.

As occasion demands, quizzes or demonstrations may be substituted for the lectures.

The physiology of the central nervous system and organs of sense is given in the second year, after the student has had preparatory work on the anatomy and histology.

The physiology of digestion, excretion, and metabolism is likewise taken up in the second year, after the student has had the work in physiological chemistry. The last half of the work of the second year (Course 4) is taken up by a review covering the entire field of physiology, preparing the student for the final and State Board examinations.

For courses open to students in the College of Arts and Sciences, see page 109.

**1. Physiology of Movement, Sensation, Circulation, and Respiration.**—Credit, 8 University hours. Five three-hour periods per week. The course includes laboratory work accompanied by two or more recitations or quizzes, one or more demonstrations, and one

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or more lectures. Required of first-year students of medicine. Second half-year. Assistant Professor Kingsbury and Assistants.

**3. Elementary Human Physiology.**—First term. Three hours. Lectures or demonstrations upon the Physiology of the body. Designed for students who expect to teach physiology in the secondary schools, or as an introductory course for students of the Biological Sciences. Assistant Professor Kingsbury.

**4. The Physiology of Digestion, Absorption, Metabolism, and Excretion.**—Two recitations or demonstrations per week in assigned sections. Required of second-year students of medicine. Credit, 2 hours. Second half-year. Instructor Dresbach.

**5. Experimental Physiology.**—First term. Three University hours. Laboratory work with a weekly laboratory talk or quiz. An arrangement of experiments intended to meet the needs of students of the Biological Sciences. Assistant Professor Kingsbury and —.

**7. Research and Advanced Work in Physiology.**—Eight or more actual hours per week. Assistant Professor Kingsbury and Instructors.

**8. Structure, Development, and Physiology of the Nervous System and Organs of Sense.**—Credit, 3 hours. Second year. The gross anatomy, histology, and development are given together during the latter part of the first term, and are immediately followed by the physiology in the first part of the second term. Professors Gage, Kerr, and Kingsbury.

**9. Advanced Experimental Physiology.**—Two or more University hours per week. Five or more actual hours per week of work in the laboratory. Designed for students who wish to specialize in Physiology. Assistant Professor Kingsbury and Instructors.

Course 1 is required of first-year and Courses 4 and 8 of second-year students of medicine.

Course 3 should be preceded or accompanied by Course 4 or 2 in Vertebrate Zoölogy. It may with advantage be preceded or followed by Course 2 or 3 in Histology and Embryology.

Course 5 may be taken with or preceded by Course 3 or its equivalent.

Course 9 must be preceded by Course 1 or Courses 3 and 5, or their equivalents.

For courses in Comparative Physiology, see University Register.



## MATERIA MEDICA AND PHARMACOLOGY.

BENJAMIN FREEMAN KINGSBURY, Ph.D., M.D., *Assistant Professor.*

OMAR RAY GULLION, A.M., *Instructor.*

HARRY CLIFF LUKE, Ph.G., *Assistant.*

## PHARMACOLOGY AND MATERIA MEDICA.

The three sides of the subject of Pharmacology are presented in three separate courses, *Materia Medica*, *Pharmacy*, and *Pharmacology* in the narrower sense, or the *Physiological Action of Drugs*.

The *Materia Medica* includes a study of the crude drugs, their source, nature and properties, the pharmaceutical preparations, the forms for administration and prescription-writing. The course in *Pharmacy* consists of laboratory work in which the student makes pharmaceutical preparations covering the processes for the extraction of crude drugs, and the forms for administration. Although the work is pharmaceutical, the aim of the course is to have the student become familiar at first hand with the composition, chemical and physical properties of the important medicinal preparations, and the emphasis is pharmacological. In the laboratory work upon the physiological action of drugs, each student determines the exact action, as far as possible, of the most important drugs on (a) the whole animal, (b) the various organs, (c) the tissues. The more difficult experiments are assigned to groups of students who demonstrate their results to the other members of the class.

The laboratory is well fitted for research work in pharmacology, and all efforts in the direction of advanced work will be encouraged.

1. **Materia Medica.**—Two demonstrations, lectures, or recitations weekly. Second term. Assistant Professor Kingsbury.

2. **Pharmacy.**—Laboratory work, two hours weekly. In sections. Second term. Assistant Professor Kingsbury and Assistants.

3. **The Physiological Action of Drugs.**—Laboratory with occasional lectures or demonstrations, three hours weekly. First term. Instructor Gullion and Assistant.

4. **Research and Special Pharmacology.**—Laboratory work. This may consist of either (a) selected experiments on the action of



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drugs, or (b) research work along special lines. Five or more hours per week. Assistant Professor Kingsbury and Instructor Gullion.

For courses in Comparative Materia Medica and Pharmacology, see University Register.

### PHYSICS.

EDWARD LEAMINGTON NICHOLS, B.S., Ph.D., *Professor.*

ERNEST GEORGE MERRITT, M.E., *Professor.*

GEORGE SYLVANUS MOLER, A.B., B.M.E., *Assistant Professor.*

JOHN SANFORD SHEARER, B.S., Ph.D., *Assistant Professor.*

ERNEST BLAKER, B.S., Ph.D., *Assistant Professor.*

The required instruction in physics is by means of lectures throughout one half year. In these lectures the general laws of mechanics and heat, electricity and magnetism, and sound and light are presented. The very large collection of lecture-room apparatus possessed by the department makes it possible to give experimental demonstrations of all important phenomena. The arrangements for experimental work are most complete. Ordinary illuminating gas, acetylene, oxygen and hydrogen, compressed air, water and steam, blast and vacuum are within easy reach, and electric currents from alternating and direct current dynamos and from storage batteries are available. A masonry pier  $4 \times 12$  feet permits the use in the lecture room of delicate apparatus that could otherwise be used only in the laboratory. Lanterns with lime or electric light are always ready for use when they can in any way aid a demonstration.

The required course in physics for medical students consists of four lectures a week for one term, and the reading of a text-book. Note-books prepared by members of the class are read and graded at frequent intervals. A longer course, consisting of four lectures a week for one term, followed by four recitations a week, and one afternoon in the laboratory for one term, is likewise open to medical students, and all those who can find the time to do so, are urged to take this course in place of the required work mentioned above. It should be chosen in preference to the latter by all who wish to prepare themselves for advanced work in the biological sciences.

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The lectures in this course are supplemented by thorough drill upon the principles of the science, and this, together with the laboratory practice, affords opportunity for a much more adequate knowledge than can be obtained from any course that consists solely of lectures.

The department offers a course in practical photography (Physics, 18; 2 hours either term), consisting of lectures and laboratory practice. This course is open to students of medicine under the conditions stated upon page 160 of the University Register.

1. **Elementary Physics.**—Four lectures weekly, with demonstrations, for one term. Required of first-year students in Medicine. Professor Nichols, Merritt, or Shearer.

For additional courses in Physics, see University Register.

### CHEMISTRY.

LOUIS MUNROE DENNIS, Ph.B., B.S.,  
*Professor of Inorganic Chemistry.*

WILLIAM RIDGELY ORNDORFF, A.B., Ph.D.,  
*Professor of Organic and Physiological Chemistry.*

EMILE MONNIN CHAMOT, B.S., Ph.D.,  
*Assistant Professor of Sanitary Chemistry and Toxicology.*

*Instructors in Chemistry.*

ARTHUR WESLEY BROWNE, M.S., Ph.D.

RALPH CUTHBERT SNOWDON, A.B.

THOMAS G. DELBRIDGE, A.B.

*Assistants in Chemistry.*

FRANK HAWKINS, A.B.

JOHN WILLIAM TURRENTINE, Ph.B., M.S.

BURTON JUSTUS RAY, A.B.

JOSEPH J. FRANK, A.B.

GEORGE COOKE ROBERTSON, A.B.

JOHN A. BLACK, A.B.

MAXIMILLAN C. ALBRECH, A.B.

**Inorganic Chemistry.**—The elements of Inorganic Chemistry are taught by lectures, laboratory work, and recitations. The

lectures are profusely illustrated by experiments and lantern projection, and while presenting the fundamental concepts of chemical theory are also largely descriptive in character. Experiments illustrating the principles discussed in the text-book are performed in the laboratory by each student.

**Qualitative Analysis.**—The qualitative analysis begins with the study of such reactions of the commoner elements and their compounds as are used in their detection. This is followed by the practical application of the knowledge thus gained to the analysis of unknown substances, both in the solid form and in solution. The work is accompanied by thorough drill in the writing of chemical equations.

**Organic Chemistry, or the Chemistry of the Compounds of Carbon.**—In this course the study of the typical compounds of carbon, their properties, reactions, and relations to one another, is taken up, especial attention being given to those organic substances that are of physiological importance. The course consists of lectures and recitations, supplemented by frequent written examinations. The lectures are fully illustrated by experiments, specimens of the compounds considered, and charts.

**Toxicology.**—This course is intended to serve as an introduction to the methods employed for the separation and identification of the common poisons, inorganic and organic. Special attention is given to the identification of poisons when present in organic matter, such as animal excretions and tissues, medicines, etc. This course also includes the identity tests for a few synthetic remedies.

**Physiological Chemistry.**—The work in this course comprises the study of the chemistry of the proteids, carbohydrates, and fats, and of the compounds found in the animal body which are of physiological and pathological importance. The method of instruction is by lectures, recitations, and laboratory work, with frequent written reviews. In the laboratory the student separates from the various animal fluids and organs the chemical compounds which they contain, studies their properties, reactions, and products of decomposition, and thus familiarizes himself with the methods of isolation and identification of these products.

The above courses in Chemistry are required of all students in medicine. Other advanced courses are open to properly qualified

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students in medicine, and especial facilities for research work in chemistry are at their disposal.

**1. Introductory Inorganic Chemistry.**—Three lectures, one recitation and five hours of laboratory work, weekly. First half-year. Professor Dennis and Mr. Snowdon, Messrs. Hawkins, Frank, — and —.

**8. Qualitative Analysis.**—One lecture and five hours of laboratory, weekly. Second half-year till April 24th. Dr. Browne; Mr. Turrentine.

**81. Toxicology.**—One lecture and five hours' laboratory work weekly. Second half-year after April 24th. Assistant Professor Chamot and Messrs. Robertson and Albrech.

**32. Elementary Organic Chemistry.**—Two hours' lectures and written reviews. Second half-year. Mr. Delbridge.

**40. Physiological Chemistry.**—Two hours' lectures or recitations and written reviews. First half-year. Mr. Delbridge.

**41. Physiological Chemistry.**—Seven and one-half hours' laboratory work weekly. First half-year. Mr. Delbridge and Mr. Black.

Courses 1, 8, 81, and 32 are required in the first year and Courses 40 and 41 in the second year of the medical course.

For additional courses in Chemistry, see University Register.

## BACTERIOLOGY.

VERANUS ALVA MOORE, B.S., M.D., *Professor.*

SAMUEL HOWARD BURNETT, A.B., M.S., D.V.M., *Instructor.*

GERSHOM FRANKLIN WHITE, B.S., *Instructor.*

WINFRED BERDELL MACK, D.V.M., *Assistant.*

CASSIUS WAY, B.AGR., *Assistant.*

The instruction in Bacteriology is given by means of lectures, recitations, and laboratory work. The bacteriological laboratories are well supplied with the best modern apparatus. The student will, under proper supervision, prepare culture media, make cultures, and study the morphology of bacteria in both the fresh (living) condition and in stained cover-glass preparations. In fact, all of the technique necessary for a practical working knowledge in bacteriology will be carefully covered. The more

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important species of pathogenic bacteria will be studied. The special methods which are necessary for diagnosing such diseases as tuberculosis, anthrax, glanders, and diphtheria will receive careful attention. Disinfection, sterilization, the means by which pathogenic bacteria are disseminated, protective inoculation, and other kindred subjects will be considered.

**43. Bacteriology.**—Two lectures and ten hours' laboratory work each week. Second half-year. Required of second-year medical students. Professor Moore, Instructor White and Dr. Mack.

**44. Research in Bacteriology.**—Laboratory work with lectures and seminary throughout the year. Professor Moore and Mr. White. The course is designed for those wishing to undertake original investigation in Bacteriology preparatory to practical work in bacteriological lines, such as exists in health department laboratories. This course is open to students who have taken Course 43 or its equivalent in some other university. Elementary chemistry and a reading knowledge of French and German are indispensable for successful work in this course.

### GENERAL PATHOLOGY.

VERANUS ALVA MOORE, B.S., M.D., *Professor.*

SAMUEL HOWARD BURNETT, A.B., M.S., D.V.M., *Instructor.*

GERSHOM FRANKLIN WHITE, B.S., *Instructor.*

WINFRED BERDELL MACK, D.V.M., *Assistant.*

CASSIUS WAY, B.AGR., *Assistant.*

The course in pathology consists of lectures, recitations, and laboratory work in pathological histology. The student will also be given instruction in describing gross pathological specimens, but the major part of the work in the laboratory will consist in studying sections of diseased tissue and making drawings from the same. In this course it is expected that the student will become familiar with the terms used in morbid anatomy, together with a definite knowledge of the more important changes found in inflammation and the various forms of infiltrations and degenerations.

**40. Pathology.**—Two lectures or recitations and six hours'



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laboratory work each week. First term to Christmas vacation. Professor Moore, Instructors Burnett and White. This course is open to students who have had Course 1 in Microscopy.

**45. Research in Pathology.**—Laboratory work throughout the year. Professor Moore and Instructor Burnett. This course is open to students who have taken Course 40 and have taken or are taking Course 43, or the equivalent in some other university.

### SURGERY.

MARTIN BUEL TINKER, B.S., M.D., *Lecturer on Surgery.*

Four hours weekly, second half year, recitations, demonstrations and occasional lectures. The course is given to small sections, and is intended to familiarize the student with the principles of General Surgery and Surgical Pathology. Demonstrations are used whenever possible in teaching such subjects as Surgical Bacteriology, the histological changes in wound repair and the general principles of diagnosis and treatment of surgical diseases and injuries. Having in mind the present great importance of ability to pass examinations as well as with the aim of teaching systematic and concise arrangement and expression, frequent written exercises are given. Recitations are adopted as the principal method of instruction with the belief that for the average student information is best assimilated and retained when acquired by personal effort. Lectures are given whenever they seem likely to be helpful in supplementing other methods of instruction.

**1. Surgery.**—Recitations, demonstrations or lectures. Four class exercises weekly in small sections. Dr. Tinker.

### MEDICINE.

EUGENE BAKER, B.S., M.D., *Lecturer on Medicine.*

No didactic lectures are delivered, their place being taken by recitations from a standard text-book.

**Recitations.**—The study of medicine proper is begun with systematic recitations from *Modern Medicine*, by Salinger and



Kaltiger. In these recitations the nomenclature, etiology, pathology, and symptomatology of typical cases of diseases are considered, the question of treatment not being taken up until the Junior year in New York.

1. **Medicine.**—Two recitations weekly. Second half-year. Required of second-year students in medicine. Dr. Baker.

## OBSTETRICS.

EUGENE BAKER, B.S., M.D., *Lecturer on Obstetrics.*

Instruction in obstetrics consists mainly of recitations from a standard text-book, these recitations covering the anatomy of the internal genitalia and pelvis, ovulation, menstruation, signs of pregnancy, the physiology, mechanism, and clinical course of normal labor, and the care of mother and child during the puerperium. Whenever necessary, these recitations will be illustrated by plates, casts, and demonstrations upon the obstetric manikin, etc.

1. **Obstetrics.**—Two recitations weekly. Second half-year. Required of second-year students in medicine. Dr. Baker.

## SCHEDULE AND SUMMARIZED STATEMENT.

In this schedule the Counts or University hours are given on the following basis: One recitation or lecture weekly for one term or half-year gives a credit of one; for laboratory work it requires two and one-half actual hours weekly for a term or half a year to secure a credit of one. In the courses of instruction following the schedule, the actual time required each week of the student at lectures, recitations, and laboratory work is stated.

### SCHEDULE OF REQUIRED COURSES.

#### \* *First Year.*

##### FIRST TERM.

<i>Subject.</i>	<i>No. of Course.</i>	<i>Hours of Credit.</i>	<i>Actual Hours per Week.</i>
Anatomy . . . . .	1	13	32½
Chemistry . . . . .	1	6	9
Physics . . . . .	1	4	4

##### SECOND TERM.

Histology . . . . .	1	8	15
Physiology . . . . .	1	8	15
Qual. Chem. Anal. . . . .	8	2	} 6
Toxicology . . . . .	81	1	
Organic Chemistry . . . . .	32	2	2

#### \* *Second Year.*

##### FIRST TERM.

Anatomy . . . . .	2	9	22½
Anatomy . . . . .	4	1	2½
Physiological Chemistry . . . . .	40	2	2
Physiological Chemistry Lab. . . . .	41	3	7½
Pathology . . . . .	40	3	8
Physiological Action of Drugs . . . . .	3	1	3
Nervous System, Structure and De- velopment . . . . .	8	2	5

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## SECOND TERM.

<i>Subject.</i>	<i>No. of Course.</i>	<i>Hours of Credit.</i>	<i>Actual Hours per Week.</i>
Nervous System, Physiology . . . . .	8	1	1
Physiology Recitations . . . . .	4	2	2
Neurology . . . . .	3	2	3½
Anatomy . . . . .	3	2	5
Bacteriology . . . . .	43	6	12
Materia Medica . . . . .	1	2	6
Pharmacy . . . . .	2	1	2
Medicine . . . . .	1	2	2
Surgery . . . . .	1	4	4
Obstetrics . . . . .	1	2	2

*Junior Year.*—For subjects, see pages 84 and 85, as given in New York City.

*Senior Year.*—For subjects, see pages 86 to 87, as given in New York City.

## SUMMARY OF REQUIRED COURSES.

### FIRST YEAR.

**1. Anatomy.**—Laboratory work with section demonstrations and recitations, thirty-two and a half actual hours weekly. First half-year. Professor Kerr, Instructor Gray, Assistant Demonstrators Hathaway, Goehle, and Jelke.

**1. Introductory Inorganic Chemistry.**—Three lectures, one recitation, and five hours of laboratory work weekly. First half-year. Professor Dennis and Mr. Snowden; Messrs. Hawkins, Frank, — and —.

**1. Elementary Physics.**—Four lectures, with demonstrations, weekly, first half the year. Professor Nichols, Merritt, or Shearer.

**1. Microscopy, Histology, and Embryology.**—Second half-year. Credit, 8 University hours. Two recitations, twelve hours of laboratory work, and one or more lecture-demonstrations weekly during the second half-year. Professor Gage, Assistants Read, Hathaway, Sweet, and Pawling.

## CORNELL UNIVERSITY MEDICAL COLLEGE.

1. **Physiology of Movement, Sensation, Circulation, and Respiration.**—Credit, 8 University hours. Five three-hour periods per week. The course includes laboratory work accompanied by two or more recitations or quizzes, one or more demonstrations, and one or more lectures. Second half-year. Assistant Professor Kingsbury and Assistants.

8. **Qualitative Analysis.**—One lecture and five hours of laboratory weekly. Second half-year till April 22d. Dr. Browne and Mr. Turrentine.

81. **Toxicology.**—One lecture and five hours of laboratory work weekly. Second half-year after April 24th. Assistant Professor Chamot and Messrs. Robertson and Albrecht.

32. **Elementary Organic Chemistry.**—Two lectures weekly. Second half-year. Mr. Delbridge.

### SECOND YEAR.

2. **Anatomy.**—Laboratory work with section demonstrations and recitations twenty-two and a half actual hours weekly. First half-year. Professor Kerr, Instructors Gray, Assistant Demonstrators Hathaway, Goehle, and Jelke.

4. **Anatomy, Thoracic and Abdominal Viscera.**—Section demonstrations two and a half hours weekly. First half-year. Professor Kerr.

40. **Physiological Chemistry.**—Two lectures or recitations weekly. First half-year. Mr. Delbridge.

41. **Physiological Chemistry Laboratory.**—Seven and a half hours' laboratory work weekly. First half-year. Mr. Delbridge and Mr. Black.

40. **Pathology.**—Two lectures or recitations and six hours' laboratory work each week. First term to Christmas vacation. Professor Moore, and Instructors Burnett and White.

3. **The Physiological Action of Drugs.**—Laboratory with occasional lectures or demonstrations, three hours weekly. First term. Instructor Gullion and Assistant.

8. **Structure, Development, and Physiology of the Nervous System and Organs of Sense.**—Credit 3 hours. Second year. The gross anatomy, histology, and development are given together during the latter part of the first term, and are immediately fol-

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lowed by the physiology in the first part of the second term. Professors Gage, Kingsbury, and Kerr.

**4. Physiology, Recitations and Demonstrations.**—Digestion, Absorption, Metabolism, and Excretion. Two hours a week. Second half-year. In assigned sections. Instructor Dresbach.

**3. Neurology.**—One lecture and one practicum or demonstration weekly. Second half-year. Professor Wilder and Mr. Sheldon.

**3. Topographical and Regional Anatomy.**—Section demonstrations five hours weekly. February to June. Dr. Kerr and Instructors.

**43. Bacteriology.**—Two lectures and ten hours' laboratory work each week. Second half-year. Professor Moore, Instructor White, and Dr. Mack.

**1. Materia Medica.**—Two demonstrations, lectures, or recitations weekly. Second term. Assistant Professor Kingsbury.

**2. Pharmacy.**—Laboratory work, two hours weekly. In sections. Second term. Assistant Professor Kingsbury and Assistants.

**1. Medicine.**—Two recitations weekly. Second half-year. Dr. Baker.

**1. Surgery.**—Recitations, demonstrations, or lectures. Four hours in small sections. Second half-year. Dr. Tinker.

**1. Obstetrics.**—Two recitations weekly. Second half-year. Dr. Baker.

## THE A.B. AND M.D. DEGREES.

As a liberal education in the Arts and Sciences is of great advantage to students of Medicine, all who can are urged to precede their medical studies by a college course. A student who takes the academic work in the College of Arts and Sciences of Cornell University will be permitted to elect, as the Fourth Year of his A.B. Course, a year's work in the Medical College. He may then take his fifth year of work—the second of the medical course—either in Ithaca or New York, but he must take the last two years of the medical course in New York. In this way he will obtain the A.B. degree at the end of four years and the M.D. at the end of seven years of study. This is possible because the first two years of the medical course in New York are offered in duplicate at the University in Ithaca.

### RECOMMENDED COURSE IN ARTS FOR MEDICAL STUDENTS.

The work in the College of Arts and Sciences is largely elective. The Medical Faculty, however, recommends that students who intend to take the work in the Medical College should elect the following curriculum:

#### FIRST YEAR — ARTS.

<i>Subject.</i>	<i>Course No.</i>	<i>1st Term Hours.</i>	<i>2d Term Hours.</i>
English or History,		3	3
*Mathematics,	6	3	3
†Foreign Language,		3	3
Chemistry, Inorganic,	1	6	
Chemistry, Qualitative Anal.,	8		2
Physics,	1	..	4
Invertebrate Zoölogy,	1	2	
Vertebrate Zoölogy,	2	2	
Invertebrate Morphology,	2		3
		19	18

In addition to the above, a student must take the required physical training.

\* Those who at entrance offer Advanced Mathematics should take other work in its place.

† Students should have a reading knowledge of French and German.



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## SECOND YEAR — ARTS.

<i>Subject.</i>	<i>Course No.</i>	<i>1st Term Hours.</i>	<i>2d Term Hours.</i>
Foreign Language,		3	3
Physics, Recitation,	6	4	
Physics, Laboratory,	10		2
Botany,	1 and 2	3	3
Anatomic Methods,	4	3	
Psychology and Logic,	1	3	3
Neurology,	3		2
Elective,		2-4	2-4

In addition to the above, a student must take the required physical training.

## THIRD YEAR — ARTS.

Organic Chemistry,	30	6	6
Physiology,	5	3	
Histology and Embryology,	2		4
Elective,		8-9	8-9

The Faculty recommend that the electives be selected from among the following:

	<i>Course No.</i>	<i>1st Term Hours.</i>	<i>2d Term Hours.</i>
Invertebrate Zoölogy,	3		2 or 3
Comparative Anatomy,	5		3
Advanced Neurology,	7		2 +
Systematic Vert. Zoölogy,	6	3	3
Advanced Physiology,	9	2 +	
Advanced Histology and Embryology,	4	3 +	
Psychology, Laboratory,	2	3	3
Photography,	18	2	or 2
Foods, Beverages, etc.,	70	2	
Potable Water,	75		2
*Food Analysis,	71	3	
*Water Analysis,	76		3
English,			
Philosophy,			
History and Political Science.†			

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\* Must have Quantitative Analysis first. † Especially courses 41 and 55.

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## FOURTH YEAR—ARTS.

### FIRST YEAR — MEDICAL.

<i>Subject.</i>	<i>Course No.</i>	<i>1st Term Hours.</i>	<i>2d Term Hours.</i>
Anatomy,	1	13	
Physiological Chemistry,	40 and 41	5	
Histology,	1		8
Physiology,	1		8
Toxicology,	81		1
		—	—
		18	17

Students who have taken the above course and received the A.B. degree will then take the work of the 2d, 3d, and 4th years in the Medical College.

The Secretary of the Medical College will be glad to confer with students in the College of Arts and Sciences who later expect to enter the Medical College.

He will be especially glad to consult with those students who wish to modify the above curriculum.

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\* Those students who at entrance offer one modern language should elect the other. Those who offer French and German and Mathematics should elect other subjects in place of this work.

# CORNELL UNIVERSITY MEDICAL COLLEGE.

## OPTIONAL FIVE-YEAR MEDICAL COURSE.

FOR STUDENTS WHO HAVE SATISFIED THE A.B. ENTRANCE REQUIREMENTS.

All who can do so are urged to take the seven-year Arts-Medical Course outlined above and thus secure the two degrees, A.B. and M.D. For those who cannot afford the time for that course the Medical Faculty have provided an optional five-year Medical Course outlined below:

### FIRST YEAR.

<i>Subject.</i>	<i>Course No.</i>	<i>1st Term Hours.</i>	<i>2d Term Hours.</i>
Chemistry,	1	6	
Chemistry,	8		2
Chemistry, Toxicology,	81		1
Chemistry, Organic,	32		2
Physics,	1, 6, & 10	5	5
Zoölogy, Invertebrate,	1	2	
Zoölogy, Vertebrate,	2	2	
Invertebrate Zoölogy,	2		3
Comp. Anatomy,	5		3
Botany,	1	3	1
Psychology,	1	2	
Neurology,	3		2
		—	—
		20	19

### SECOND YEAR.

<i>Subject.</i>	<i>Course No.</i>	<i>1st Term Hours.</i>	<i>2d Term Hours.</i>
Anatomy,	1	13	
Physiological Chemistry,	40	2	
Physiological Chemistry,	41	3	
Histology,	1		8
Physiology, Recitations,	2		3
Physiology, Lectures,	1		3
Physiology, Laboratory,	5		3
El. Social Economics,	41	2	2
		—	—
		20	19

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## THIRD YEAR.

<i>Subject.</i>	<i>Course No.</i>	<i>1st Term Hours.</i>	<i>2d Term Hours.</i>
Anatomy,	2	9	
Anatomy,	4	1	
Pathology,	40	3	
Nervous System,	8	2	1
Physiology, Recitations,	4		2
Anatomy,	3		2
Bacteriology,	43		6
Materia Medica,	1		2
Medicine,	1		2
Surgery,	1		4
Obstetrics,	1		2
Advanced Work,		4	
		—	—
		19	21

Upon completing the above work the student will take the regular third and fourth year's work in New York City. Those students who for any reason wish to modify the work of the first year should consult the Secretary of the Medical College.

## REQUIREMENTS FOR ADMISSION.

(For details in regard to entrance see pages 24-30.) No student is admitted except at the beginning of the college year in September.

\*For admission to the FIVE YEAR MEDICAL COURSE and to the COLLEGE OF ARTS AND SCIENCES the following subjects are required.

English, History, Plane Geometry, Elementary Algebra, and any one of the three following groups, A, B, or C:

(A) Latin Grammar, Cæsar, Latin Composition, Cicero, Virgil, Greek Grammar, Xenophon, Greek Composition, and Homer.

(B) Latin Grammar, Cæsar, Latin Composition, Cicero, Virgil, and either Advanced French, Advanced German, or Advanced Spanish.

(C) Advanced French, Advanced German, Solid Geometry, Advanced Algebra, and Plane and Spherical Trigonometry.

One of the following entrance subjects, Physics, Chemistry, Geology, Botany, or Zoölogy, may be offered in place of advanced Mathematics.

## CORNELL UNIVERSITY MEDICAL COLLEGE.

The Medical Faculty recommend that the students enter in Group C in preference to A or B.

For further information concerning entrance requirements, Regents' credentials, or school certificates, apply to David F. Hoy, Registrar, Cornell University, Ithaca, N. Y.

Students entering the five-year medical course and students in the College of Arts and Sciences should consult the Secretary of the Medical College in regard to their Medical Students' Certificate.

### RESIDENCE AND REGISTRATION.

The college year is nine months long, extending from the last of September till about the middle of June, and is divided into two nearly equal terms. (For exact dates, see calendar on page 100.)

Residence in Ithaca is required of all students. For leave of absence during the session, application should be made to the Secretary.

At the beginning of the term (September 26-28, 1906, and February 3, 1907) students must register with the University Registrar, Room 9A, Morrill Hall. After registration with the University Registrar, they must register with the Secretary of the Medical College, in Stimson Hall.

SCHOLARSHIPS. (See pages 37-38.)

### EXAMINATIONS.

Students are advanced in course from one year to the next upon passing examinations upon the work of that year. As in the Academic Department, the work of each year is considered final of itself. There is no unnecessary repetition of subjects taught from year to year. According to the usage of the other departments, the University student found to be markedly deficient will be dropped from the college.

### ADVANCEMENT FROM SECOND TO THIRD YEAR.

Upon the completion of the two years in Ithaca, the student must obtain from the Faculty a statement of all the work which

## CORNELL UNIVERSITY MEDICAL COLLEGE.

he has done; and accompanying this statement must be a recommendation that he be allowed to register in the New York division. As a student is not advanced from one year to another in the New York division until all the work of the year is completed, a student from Ithaca cannot enter the third-year class in New York until the entire schedule of the first two years has been successfully completed. For removing any conditions, examinations are held at the beginning of the fall term, both in Ithaca and in New York City. The student is at liberty to take these examinations in Ithaca or in New York City. The examination on a subject in either place is final for that year. That is, the student will not be permitted to try an examination on a subject in Ithaca, and take advantage of the later date for the examination in New York to have a second examination on the same subject in the same autumn.

If a student is deficient in two or more subjects there is no objection to his taking the examination in one or more subjects in Ithaca, and the remaining ones in New York, the same autumn.

### MEDICAL SOCIETY.

The Cornell Medical Society is a student organization. At the meetings, papers prepared by the members are read, followed by general discussion. The aim is to give mutual aid in gaining general and special medical knowledge, facility in conducting the exercises of the meetings, and in presenting papers and discussions in a clear and forcible manner before an audience.

### CHARGES FOR INSTRUCTION.

#### FIRST YEAR.

Matriculation . . . . .	\$5
Tuition . . . . .	\$150
Laboratory Fees and Deposit . . . . .	\$56

#### SECOND YEAR.

Tuition . . . . .	\$150
Laboratory Fees and Deposit . . . . .	\$49



BOARD AND ROOMS.

The cost of living in Ithaca, including board, room, fuel, and lights, varies from \$4 to \$10 per week. By the formation of clubs, students are sometimes able to reduce their expenses to \$3.50 per week for room and board, and occasionally to even less than that amount.

The cost for board, rent of furnished room, fuel and lights, in Sage College and Sage College Cottage, which are exclusively for women, varies from \$5 to \$6.50 a week. A student occupying alone one of the best rooms pays \$6.50 a week. If two occupy such a room together, the price is \$5.75. Those occupying less desirable rooms, with two in a room, pay \$5 a week each. Both buildings are warmed by steam, lighted by electricity, and, in most cases, the sleeping apartment is separated from the study.

Letters of inquiry in regard to board and rooms at the Sage College and the Cottage should be addressed to Mr. G. F. Foote, Business Manager of Sage College, Ithaca, N. Y.

# MATRICULANTS IN NEW YORK CITY.

1905-6.

Almgren, Ebba Elizabeth.....	Stockholm, Sweden.
Anderson, Victor William.....	New York City.
Andrews, Benjamin Clark.....	New York City.
Arnold, Edward August.....	New York City.
Aronson, Henry.....	Brooklyn, N. Y.
Baker, Augustus Lynn Landon.....	Ledgewood, N. J.
Baldwin, Francis William.....	New York City.
Baldwin, Mark E., M.D.....	Homestead, Pa.
Barkhorn, Henry Charles.....	Newark, N. J.
Barron, James John, B.A., B.D., M.D.....	Siras, Turkey.
Barrows, Franklin William, A.B., A.M., M.D.....	Buffalo, N. Y.
Barsky, Michael Halpern.....	New York City.
Baxter, Milton Edwin.....	Elizabeth, N. J.
Beebe, Silas Palmer, B.S., Ph.D.....	Flushing, N. Y.
Bell, Albert Mortimer.....	Glen Head, N. Y.
Berger, Edward.....	New York City.
Bernstein, Siegbert.....	New York City.
Best, Herbert H., M.D.....	Pembroke, Maine.
Birdsall, Winslow.....	Croton Lake, N. Y.
Bishop, Ernest Simons, A.B.....	Providence, R. I.
Block, Alexander.....	Brooklyn, N. Y.
Blum, Charlotte.....	New York City.
Blum, Samuel George.....	Brooklyn, N. Y.
Bower, Jacob.....	New York City.
Boxmeyer, Charles Herbert, A.B.....	Holden, Mo.
Bradley, John Ruskin.....	Brooklyn, N. Y.
Breglia, John Eugene.....	New York City.
Brendler, Charles.....	New York City.
Brown, Aaron.....	New York City.
Bryant, Frank Alva Mitchell.....	New York City.
Butchman, Abraham.....	New York City.
Cahill, Francis Joseph, A.B.....	Hoosick Falls, N. Y.
Caldwell, Isabel, A.B.....	Brooklyn, N. Y.
Caplan, Isidor.....	Brooklyn, N. Y.
Carlisle, Lenore Nelson, A.B.....	Mt. Vernon, N. Y.
Cassola, Filippo, M.D.....	New York City.
Chace, Archibald Eastwood, A.B.....	New York City.
Chapman, Arthur William, Ph.B.....	Crown Point, N. Y.
Chapman, Louis Ballantine.....	Hartford, Conn.

# CORNELL UNIVERSITY MEDICAL COLLEGE.

Child, Frank Samuel, Jr., Ph.B.....	Fairfield, Conn.
Clurman, Morris Joseph, A.B.....	New York City.
Coffin, Ernest Linwood.....	Ashland, Maine.
Cohen, Harry.....	New York City.
Cohen, Henry Julius.....	New York City.
Cohn, Mark.....	New York City.
Colletti, Ignatius, M.D.....	New York City.
Contessa, Lawrence.....	New York City.
Correa, José Alvarez.....	Barranquilla, Columbia, So. America.
Cosgrove, Samuel Allison.....	Jersey City, N. J.
Crawford, Mary Merritt, A.B.....	Nyack, N. Y.
Cuddeback, Edgar Gordon, A.B.....	Port Jervis, N. Y.
Cunningham, Allan Rupert, A.B., M.D.....	Dartmouth, Nova Scotia.
Cuono, James John.....	New York City.
Curley, William Henry.....	Pittsfield, Mass.
Davidson, Benjamin.....	Brooklyn, N. Y.
Davis, Charles Roy, A.B.....	Madison, Ia.
Davis, Elbert Rice.....	Rushford, N. Y.
Davis, Thomas George.....	New York City.
De la Motte, James Francis.....	New York City.
Delaney, William H., M.D.....	Quebec, Canada.
Deniton, George Edward.....	New York City.
Dennis, Nina A., A.B.....	Binghamton, N. Y.
DeWolf, Harold.....	Bristol, R. I.
Donahue, William James Aloysius, A.B.....	Newark, N. J.
D'Oronzio, Joseph Bonora.....	New York City.
Droge, Anton William.....	Brooklyn, N. Y.
Dryfuss, Barney Joachim, B.S., M.D.....	New York City.
DuBois, Leo Charles.....	Newburgh, N. Y.
Dukarevitz, Louis.....	Brooklyn, N. Y.
Eckel, Edward Jacob.....	Syracuse, N. Y.
Eggleston, Cary.....	New York City.
Ehrlich, Simon David.....	New York City.
Eichel, Henry.....	New York City.
Eisenberg, David.....	Long Island City, N. Y.
Eliasberg, Bernard.....	Brooklyn, N. Y.
Engel, Irving Harold.....	New York City.
Engel, Joseph.....	Newport, R. I.
Fabbri, Remo, Ph.G.....	New York City.
Failing, Braxton Earl.....	Sherburne, N. Y.
Farkas, Morris.....	New York City.
Farnell Frederic James.....	New York City.
Feldman, Isidor.....	New York City.
Feldstein, Bernard.....	New York City.
Flagg, Pamel Joseph.....	Yonkers, N. Y.
Fowler, Royale Hamilton.....	Brooklyn, N. Y.
Fox, Frank William.....	Bayonne, N. J.
Frank, Morris.....	Elizabeth, N. J.
Fraser, Homer E., M.D.....	Brooklyn, N. Y.

# CORNELL UNIVERSITY MEDICAL COLLEGE.

Friedman, Edward Louis.....	New York City.
Gaby, Robert Edward, A.B.....	Toronto, Canada.
Garbat, Abraham Leon.....	New York City.
Gelser, George Merrill, A.B.....	Ebenezer, N. Y.
Ginsburg, Benjamin.....	New York City.
Godfrey, William Truitt.....	City Island, N. Y.
Goldblatt, Louis Leo.....	New York City.
Golding, Harry Newport.....	Paterson, N. J.
Goldstein, William.....	Brooklyn, N. Y.
Goodall, Edwin Baker, M.D.....	Ossining, N. Y.
Goodfried, Joseph.....	New York City.
Goodman, Arthur.....	New York City.
Goodwin, Frank Perry.....	Jamestown, N. Y.
Gootenberg, David.....	New York City.
Gordon, Moses Burnes.....	New York City.
Grimley, John Goodwin Joseph.....	New York City.
Grossman, Jacob.....	New York City.
Grossman, Morris.....	New York City.
Halpin, Leo.....	New York City.
Hammond, Robert Bertine.....	Millbrook, N. Y.
Hanley, John Patrick.....	Stafford Springs, Conn.
Harnden, Frank.....	Brooklyn, N. Y.
Harris, Eugene Augustus, A.B., M.D.....	Novasota, Texas.
Harris, Leon.....	Brooklyn, N. Y.
Hascall, Theodore Conrad, Ph.B.....	New York City.
Hatfield, Hazel May, A.B.....	Newark, N. J.
Hess, Walter.....	New York City.
Hillenbrand, Frederick Louis.....	New York City.
Himmelstein, Urius.....	New York City.
Hirschfeld, David Bernhard.....	New York City.
Hoag, Arthur Edmond.....	Millerton, N. Y.
Hoch, George Francis.....	Newark, N. J.
Hoffman, Florentine Milton.....	New Brunswick, N. J.
Hoffman, Richard.....	New York City.
Holla, William Andrew.....	New York City.
Hollander, Samuel.....	New York City.
Hopkins, Richard Thomas.....	Flushing, N. Y.
Horn, Arthur.....	New York City.
Horstman, August George.....	New York City.
Horwitt, Solomon.....	New York City.
Howe, Arthur John Perry.....	Montclair, N. J.
Itskovitz, John Henry.....	New York City.
Jablons, Benjamin.....	New York City.
Jacobowitz, Adolph.....	New York City.
Jacobs, Frederick Henry, Jr.....	Woodhaven, N. Y.
Johnson, Edith Eugenie.....	Palo Alto, Cal.
Johnson, Milton John.....	Jamestown, N. Y.
Jones, Charles Emerson, Jr.....	Hartford, Conn.
Joseph, David.....	New York City.

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Joshi, Lemuel Lucas, B.Sc.	Bombay, India.
Junger, Marcus, M.D.	Bedford Station, N. Y.
Kahn, Max	New York City.
Kahn, Morris Hirsch	New York City.
Kanouse, George Edward	Hackettstown, N. J.
Kaufhold, Frank	Newark, N. J.
Kearns, Thomas Joseph, B.A.	Manchester, N. H.
Keet, Ernest Ellsworth	Saranac Lake, N. Y.
Keil, Frank Conrad	New York City.
Kemp, Maurice	Catasauqua, Pa.
Kenney, John Stanley	Newark, N. J.
Kettle, William Walter	New York City.
Kice, Luther Holden	Wharton, N. J.
Kipp, Ralph	Lexington, N. Y.
Kissel, Jacob	Brooklyn, N. Y.
Koehler, Charles George, Jr., A.B.	Brooklyn, N. Y.
Koenig, Louis	Brooklyn, N. Y.
Kresky, Henry	New York City.
Krugler, Wallace	Jersey City, N. J.
Laase, Christian F. J., B.S., M.D.	New York City.
Laird, Ida Marie, A.B.	Auburn, N. Y.
Lampert, Milton Albert	Brooklyn, N. Y.
Landesman, Harry	New York City.
Langrock, Edwin George	New York City.
Larkin, John Kneisley	Dayton, Ohio.
Laurie, Thomas Forrest	Auburn, N. Y.
Legge, Robert Thomas, Ph.G., M.D.	McCloud, Cal.
Lehman, Max	Brooklyn, N. Y.
Levin, Samuel	New York City.
Lewis, Ora Mabelle, A.B.	Lancaster, Mass.
Lichtenstein, Perry Maurice	New York City.
Liebling, Philip	New York City.
Lintz, William	New York City.
Lipshitz, Mark	Brooklyn, N. Y.
London, Julius, M.D.	New York City.
Longbothum, George Thornton	Fort Salonga, N. Y.
Lowthian, Walter Edward	New York City.
Lynch, George Michael	Andover, N. Y.
McBride, Hesser Gilford	Newark, N. J.
McEveety, Charles	New York City.
McGrath, John Francis	Holyoke, Mass.
McKay, Florence Lucinda, A.B.	Webster, N. Y.
McLaren, Walter Austin	Brooklyn, N. Y.
McNeill, Walter Harold, Jr.	Mt. Vernon, N. Y.
McNe vins, John Alphonsus	New York City.
MacRae, Tom	New York City.
McSweeney, Jerome Augustine	New York City.
Mann, Charles Maitland, A.B.	New York City.
Mansfield, Edward Raymond, B.S.	Orono, Me.

# CORNELL UNIVERSITY MEDICAL COLLEGE.

Manulkin, George.....	Brooklyn, N. Y.
Markey, Edward Bond.....	Eaton, Ohio.
Marschark, Max.....	New York City.
Marsh, Edward Harvey.....	Brooklyn, N. Y.
Martin, Arthur Chalmers.....	Rockville Centre, N. Y.
Martin, Arthur Harold, A.B.....	Cooperstown, N. Y.
Martin, James Joseph.....	Atlantic Highlands, N. J.
Maslon, Morris.....	New York City.
Meichner, Frederick Henry.....	New York City.
Mendalis, Morris.....	Brooklyn, N. Y.
Messersmith, Wesley Martin.....	New York City.
Meyer, Henry Edward Berthold.....	Brooklyn, N. Y.
Mosher, George.....	New York City.
Murray, Morrison Foster.....	Brooklyn, N. Y.
Myers, Edmund.....	Boston, Mass.
Nadoolman, Max.....	Brooklyn, N. Y.
Newman, Abraham Jacob.....	Tarrytown, N. Y.
Oberndorf, Clarence Paul, A.B.....	New York City.
Olitsky, Peter Kosciusko.....	New York City.
O'Neill, Charles Leo, A. B.....	Newark, N. J.
Orth, Rudolph Daniel.....	Blauvelt, N. Y.
Pabst, Charles Frederick.....	New York City.
Palmer, George Hollis.....	Brooklyn, N. Y.
Park, David William.....	New York City.
Parker, Esther Emily, A.B.....	New York City.
Payne, Charles Rockwell, A.B.....	Wadham Mills, N. Y.
Pease, George Norman, A.B.....	Portland, Ore.
Petear, Frieda Helene.....	Brooklyn, N. Y.
Pierson, Farrand Baker, A.B.....	Brooklyn, N. Y.
Placek, Louis Joseph.....	New York City.
Poate, Ernest Marsh.....	Rushford, N. Y.
Pooley, Thomas Rickett, Jr.....	New York City.
Price, Daniel J., M.D.....	Newark, Ohio.
Price, Adelbert J.....	Dundee, N. Y.
Prince, Howard Love.....	Byron, N. Y.
Rabinowitz, Harold Max.....	Brooklyn, N. Y.
Rabinowitz, Meyer Alfred.....	Brooklyn, N. Y.
Rathgeber, Charles Frederick.....	Newark, N. J.
Ratnoff, Hyman Leon.....	New York City.
Ray, Anna Elizabeth, A.B., A.M.....	New York City.
Redding, Charles Joseph Vincent.....	Owego, N. Y.
Reed, James Erwin, Jr.....	Scheuettady, N. Y.
Reed, Lucy Carleton, A.B.....	Southbridge, Mass.
Reichle, Mary Crescentia.....	Newark, N. J.
Reid, Eva Charlotte.....	New York City.
Reilly, Daniel Robert.....	Cortland, N. Y.
Reissman, Isidor Irving.....	New York City.
Richardson, Frank Howard, A.B.....	Brooklyn, N. Y.
Roberto, Romeo.....	New York City.



# CORNELL UNIVERSITY MEDICAL COLLEGE.

Robinson, Mary Huntting.....	Ithaca, N. Y.
Robinson, Ralph.....	Ithaca, N. Y.
Rockwood, Harry L.....	Olean, N. Y.
Rohn, John Philip, Jr.....	Newark, N. J.
Roman, Julius Cæsar.....	Managua, Nicaragua.
Ronsheim, Joshua.....	Brooklyn, N. Y.
Root, Mary Pauline, M.D.....	North Attleboro, Mass.
Rosenthal, Benjamin.....	New York City.
Rothenberg, Louis.....	New York City.
Rothkowitz, Joseph.....	New York City.
Rubinowitz, Alexander Hyman.....	Brooklyn, N. Y.
Rueck, Gustave Adolph.....	South Byron, N. Y.
Rulison, Elbert Theodore, Jr., B.S.....	Schenectady, N. Y.
Russianoff, Max Jacob.....	Brooklyn, N. Y.
St. Lawrence, William Patrick.....	Paterson, N. J.
Schiff, Leo Francis.....	Brooklyn, N. Y.
Schlegman, Saul.....	New York City.
Schwartz, Benjamin.....	New York City.
Schwartz, Leo Samson.....	Brooklyn, N. Y.
Scott, Mabel.....	Jackson, Miss.
Seaman, Benjamin White.....	Rockville Centre, N. Y.
Sebastian, John N., B.S., M.D.....	Louisville, Ky.
Seibert, Otto John.....	Newark, N. J.
Senigaglia, Giacomo Abraham.....	Nyack, N. Y.
Shapero, Isador.....	Syracuse, N. Y.
Sheldon, William Hills.....	Auburn, N. Y.
Siegel, Jacob Henry, Jr.....	Brooklyn, N. Y.
Sill, William Miller.....	Jamestown, N. Y.
Skilton, Avery Wadsworth.....	Rockville Centre, N. Y.
Slutsky, Nathan Israel.....	Brooklyn, N. Y.
Smilansky, Isidor.....	New York City.
Smith, Esmonde Bathgate.....	Brooklyn, N. Y.
Smith, Warren George.....	Oneonta, N. Y.
Solomon, Meyer.....	New York City.
Sonnenberg, Jerome.....	New York City.
Sophian, Abraham.....	New York City.
Spaulding, Harry Vanness.....	New York City.
Specht, William Henry, DD.S.....	New York City.
Spitzer, Harry.....	New York City.
Startz, Benjamin.....	New York City.
Steinbugler, William Francis.....	New York City.
Stevenson, Hector Morrison.....	Queens, N. Y.
Stover, John Howard.....	Newark, N. J.
Streen, Morris.....	Newark, N. J.
Sullivan, Margaret Noonan.....	Jersey City, N. J.
Sutton, Frederick A.....	Hackettstown, N. J.
Takami, Toyohiko Campbell.....	Tuboy, Kumamoto, Japan.
Tenney, Albert Seward, A.B.....	Cambridge, Mass.
Thomas, Belle.....	New York City.

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Thorne, Victor Corse, Ph.B., LL.B., M.D.....	New York City.
Thro, William Crooks, B.S.A., A.M.....	New York City.
Tietze, Samuel.....	New York City.
Tinkler, John, Jr., A.B.....	Deposit, N. Y.
Tomkins, William.....	Brooklyn, N. Y.
Tousey, Thomas Grant.....	Pittsford, N. Y.
Tran, Irving.....	New York City.
Tully, John James, A.M., M.D.....	Stockton, Cal.
Unger, Max.....	New York City.
Vaughan, Ernest Marsters.....	Brooklyn, N. Y.
Veith, George John.....	Paterson, N. J.
Wade, Henry Albert, M.D.....	Brooklyn, N. Y.
Wager, Max Louis.....	New York City.
Waldie, Thomas Edward.....	Brooklyn, N. Y.
Walker, William Joseph, A.B.....	New York City.
Wallach, William Isidore.....	New York City.
Walzer, Abraham.....	Brooklyn, N. Y.
Ware, John Sayers.....	Stapleton, N. Y.
Waterhouse, Ernest Comston, A.B., M.D.....	Honolulu, Hawaii.
Weber, Salo, A.B.....	New York City.
Webster, Blakeley Royce.....	Middletown, N. Y.
Wechsler, Philip.....	New York City.
Weinstein, Henry.....	New York City.
Weiss, Samuel.....	New York City.
Welch, Stewart Henry, A.B.....	Uniontown, Ala.
Wellberry, Edward Montgomery.....	Buffalo, N. Y.
Welles, Edward Murray, A.B.....	Addison, N. Y.
Wheeler, George Whiting.....	Buffalo, N. Y.
White, George Starr.....	Yonkers, N. Y.
Wilcox, Henry Hopson.....	Potsdam, N. Y.
Wilson, David, A.B.....	Amsterdam, N. Y.
Wincor, Henry.....	New York City.
Wing, Lucius Arthur, B.Sc.....	Columbus, O.
Winslow, Floyd Stone.....	Henrietta, N. Y.
Wolf, Charles.....	New York City.
Workman, Isaac.....	New York City.
Yum, William.....	New York City.
Zehnder, Anthony Charles.....	Newark, N. J.
Zingher, Abraham.....	New York City.
Zuckerman, Jerome.....	New York City.
Zuckerman, Samuel.....	New York City.

## MATRICULANTS AT ITHACA.

Allaben, Charles Moore.....	Margaretville, N. Y.
Axtell, Clayton Morgan.....	Barbourville, N. Y.
Baker, Davis.....	North Granville, N. Y.
Baker, Valentine Collamer.....	Ballston Spa, N. Y.
Ballou, Edward John.....	Gardenville, N. Y.
Barnes, Harold Fairchild.....	New York City.
Brink, Calvin Clark.....	Hammondsport, N. Y.
Brown, Harold William.....	Jersey City, N. J.
Cooley, James Allen.....	Canandaigua, N. Y.
Cross, Lewis Josephus.....	Eagle Bridge, N. Y.
Dempsey, George Roger.....	Millerton, N. Y.
Denniston, Frank.....	New York City.
Denton, William.....	Port Jervis, N. Y.
Donoghue, James Patrick.....	Rochester, N. Y.
Dowdle, Edward.....	Owego, N. Y.
DuBois, Phebe Lott.....	Holmdel, N. J.
Durand, Albert Cyrus.....	Oberlin, O.
Forrest, Gertrude Edith.....	Great Neck, L. I.
Gelien, (Mrs.) Johanna.....	Ithaca, N. Y.
Gillette, Arthur Taylor.....	Cuba, N. Y.
Gould, Lewis Arthur.....	Interlaken, N. Y.
Graham, John Cooper.....	Brookton, N. Y.
Graves, Gaylord Willis.....	Ithaca, N. Y.
Greene, Albert Dygert.....	Fort Plain, N. Y.
Harsha, William Thomas.....	Chicago, Ill.
Hartigan, William Edward.....	Norwich, N. Y.
Hayes, Edwin Hawley.....	Buffalo, N. Y.
Hayes, Raymond Felch.....	Berwick, Me.
Horn, Stanley Granger.....	Brooklyn, N. Y.
Holton, Walter Bounell.....	Montclair, N. J.
Kelsey, Joel Smith.....	Flushing, L. I.
Knowles, Paul.....	Avon, N. Y.
Kreiner, Miriam Rosella.....	New York City.
Lance, Ruth Mitchell.....	Kingston, Pa.
McCombs, Carl Esselstyne.....	Frankfort, N. Y.
Mitchell, James Reid.....	New York City.
Moorman, Silas Mercer.....	Georgetown, Ky.
Newman, Leander Allison.....	Penn Yan, N. Y.
Nill, Joseph Henry.....	Philadelphia, Pa.
O'Brien, Paul.....	Pittsburg, Pa.
Phipps, William Giles.....	Mt. Vernon, N. Y.
Quinn, Patrick John.....	Oswego, N. Y.
Reid, John Irvin.....	Schenectady, N. Y.

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Santee, Harold Elmore.....	Hornellsville, N. Y.
Seofield, Winsor Herbert.....	Canandaigua, N. Y.
Simpson, Reuben Spencer.....	Oswego, N. Y.
Stilson, George Doremus.....	Buffalo, N. Y.
Sweet, Earl Vincent.....	Phoenix, N. Y.
Swezey, Sarah Ellis.....	Jamaica, N. Y.
Thomson, Archibald Wilson.....	Englewood, N. J.
Van Kleeck, Louis Ashley.....	Ithaca, N. Y.
Van Marter, James Howard.....	Newfield, N. Y.
Wanless, Richard.....	Geneva, N. Y.
White, Gresham Franklin.....	Malta, O.
White, Robert Joseph.....	Lockport, N. Y.
Willard, Luvia Marguerite.....	East Angus, Que., Can.
Winslow, Elizabeth Bishop.....	Ithaca, N. Y.
Woodhull, Stephen Curtis.....	Ithaca, N. Y.
Wyntcoop, Roy Baldwin.....	Chemung, N. Y.

## HOSPITAL APPOINTMENTS.

The percentage obtained in each class since the opening of the College is as follows:

1899.....	42 per cent.	1902.....	71 per cent.
1900.....	58 per cent.	1903.....	78 per cent.
1901.....	61 per cent.	1904.....	59 per cent.
1905.....	85 per cent.		

### 1905.

#### *Presbyterian Hospital.*

Robert LeRoy Hutton, A.B.,  
Alvin Walter Baird, A.B.,  
Charles H. Cocke, B.A.,  
Bert Raymond Hoobler, B.S., A.M.

#### *New York Hospital.*

Otto Louis Goehle, A.B.,  
Rollin Hills.

#### *N. Y. Post-Graduate Hospital.*

Bertrand Francis Drake, B.S.

#### *German Hospital.*

George Louis Rohdenburg.

#### *Harlem Hospital.*

Leopold H. Berliner.

#### *Fordham Hospital.*

William Hinz.

#### *N. Y. Polyclinic Hospital*

Herbert Stein.

#### *St. Mark's Hospital.*

John A. Heim,  
William F. Bozenhardt,  
Frederick W. Stechman.

#### *City Hospital.*

Harry A. Walker,  
James M. MacKellar.

#### *St. Vincent's Hospital.*

Arthur M. Wright, A.B.

#### *Seton Hospital.*

James M. Wicks.

#### *Montefiore Home.*

Maurice O. Magid.

#### *Bellerue Hospital.*

##### Second Division.

A. Newell Benedict,  
John R. Herrick, B.A., M.A.,  
Earle W. Phillips,  
John Homer Cudmore,  
Horace Westlake Frink,  
William Murray Kerr.

##### Fourth Division.

Alfred A. Walker,  
John H. Richards,  
Harvey P. Groesbeck,  
Charles W. O. Bunker, B.Sc.

#### *Lincoln Hospital.*

Damas B. Becker.

# CORNELL UNIVERSITY MEDICAL COLLEGE.

*Mt. Sinai Hospital.*

Bernard Rein.

*Beth Israel Hospital.*

Harry E. Isaacs,  
Milton G. Wasch.

*Columbus Hospital.*

Joseph Di Rocco.

*Lebanon Hospital.*

Julius London.

*Sydenham Hospital.*

Morris J. Klein.

*Babies' Hospital.*

Elizabeth M. Worts.

*N. Y. Infirmary for Women and  
Children.*

Rose Cohen.

*Metropolitan Hospital.*

Charles Broder, A.B.

*Methodist Episcopal Hospital,  
Brooklyn, N. Y.*

Wilson Briggs Zimmer.

*St. Catherine's Hospital, Brooklyn,  
N. Y.*

Charles A. Gordon,  
Joseph L. de Varona.

*St. Mary's Hospital, Brooklyn,  
N. Y.*

John Joseph McGlade,  
James F. Coyle.

*Brooklyn German Hospital.*

Edmund Otto Darbois,  
Harry Bain Avery.

*St. John's Hospital, Brooklyn,  
N. Y.*

Alfred W. White,  
Robert R. Patterson, A.B.

*St. Vincent's Hospital, Staten  
Island, N. Y.*

Charles W. Murset.

*Robert Packer Hospital, Sayre,  
Pa.*

Harry Isaac Andrews.

*Utica General Hospital, Utica,  
N. Y.*

George C. Wankel.

*Memorial Hospital, Worcester,  
Mass.*

Alletta Langdon Bedford, A.B.,  
Leona Estelle Todd, A.B.

*Rochester City Hospital, Roches-  
ter, N. Y.*

Milton Chapman,  
Roscoe Squires Wilcox.

*Memorial Hospital, Orange, N. J.*  
William A. McMurtrie, Ph.B.

*Emergency Hospital, Buffalo,  
N. Y.*

Herbert Paterson MacGregor.

*Paterson General Hospital, Pater-  
son, N. J.*

Richard Sandford Mallon.

*St. Joseph's Hospital, Yonkers,  
N. Y.*

John Francis Gannon, A.B.

*R. I. General Hospital, Providence,  
R. I.*

Samuel Newell Smith, Jr.

*Faxon Hospital, Utica, N. Y.*

George Albert Newton.

*Woman's Hospital and Infant's  
Home, Detroit, Mich.*

Zella M. Clark, B.A.

*Fabiola Hospital, San Francisco,  
California.*

L. Maud Parker, A.B.



## COLLEGE BUILDING.

The Medical School and a Dispensary, each with a main entrance on First Avenue, are arranged as follows:

The basement is commodious, well lighted, and ventilated, and contains the engines, boilers, dynamos and ventilating machinery; the refrigerating and cold-storage plant, with the injecting and freezing rooms; a large room with lockers, and another for bicycles. Storerooms, including one for drugs; four rooms, including a small theatre and a workshop, for orthopædic surgery; toilet rooms and lavatories, and several rooms for the janitor of the building, are also found here. On the basement level, but outside of the building, is a large incinerating furnace for consuming all the refuse from the College.

The principal entrances to the building are on the *First Floor*. They open from First Avenue into vestibules, one leading to the main hall of the school, the other to the general waiting room of the dispensary, between which the large amphitheatre is situated.

The rooms of the Children's Department, which include an isolating room and a small theatre, are placed between the entrances, while around the waiting room of the dispensary are located the office for distributing patients, the pharmacy rooms for the departments of surgery and medicine, waiting and dressing rooms, lavatories, and rooms for the Roentgen-ray and sterilizing apparatus.

Grouped around the main hall of the school on this floor are the council and faculty room, the office of the Dean, the secretary, and the clerk, reading and recitation rooms.

Upon the *Second Floor*, the same general arrangement prevails. On the side of the dispensary there is a large waiting room, surrounded by rooms assigned respectively to the departments of genito-urinary diseases, diseases of the nervous system, of the skin, and of the ear, while covering the space at the middle front of the building are the rooms belonging to the departments of the eye and the throat, with a series of twenty dark stalls for the simultaneous examination of as many patients by as many students. Small waiting and dressing rooms and lavatories for the convenience of the patients are also found on this floor. The upper part of the large amphitheatre, extending from the floor below, occupies the centre of the rear half of this floor. The remainder of the floor is given up to the school. Here is found a hall, around which are grouped recitation rooms and laboratories for clinical pathology. These laboratories have convenient access from the dispensary, permitting ready coöperation in the work carried on there.

The *Third Floor* of the building is given up to teaching space, excepting an area upon the "dispensary side" of the building, which is assigned to the departments of gynecology and obstetrics. This comprises a small theatre, examining, waiting, dressing, and toilet rooms, manikin, and two recitation rooms. The remainder of this floor is occupied by two

## CORNELL UNIVERSITY MEDICAL COLLEGE.

amphitheatres (each having a seating capacity of about 175 students); one for anatomy, physiology, and pathology, the other for chemistry; attached to each are preparation and research rooms. The chemical laboratories also occupy this floor, including the main laboratory, the laboratory for physiological chemistry, rooms for apparatus, etc., and a library of chemistry.

There is the usual hall and corridor space with toilet rooms and lavatories.

The *Fourth Floor* is occupied by the upper part of the two amphitheatres which project from the floor below. The department of pathology and bacteriology occupies the remainder of this floor. Ample facilities are provided, not only for the class work and demonstrations, but for special and advanced courses and investigations. A library of pathology and bacteriology is situated here.

The *Fifth Floor* is devoted to the department of practical anatomy. The main dissecting room occupies a space of 160 by 55 feet; there is also a large room, 40 by 50 feet, which is set apart for advanced undergraduates and post-graduates. These rooms can be cooled by the refrigerating plant in such a manner as to permit the pursuit of practical anatomy with as much comfort in summer as in winter.

This floor presents such facilities as lockers for 300 students, a small demonstration theatre with prosecting and cold-storage room attached, private dissecting rooms, a bone room, a library, a reading and study room, and a commodious room for instruction in operative surgery.

The department of photography, the animal house, and a room for the preparation of bones are placed in a half-story at the top and rear of the building.

There are two main staircases, one for each department of the building, passenger elevators, and a freight lift.

The building itself is fireproof throughout, being constructed of steel, stone, brick, marble, and tile. The glazed brick and glazed tile walls, tile floors, and enamel painted cast-iron trim to the doors and interior of the windows insure cleanliness. Special attention has also been paid to the problems of refrigeration, lighting, heating, and ventilation, so that every part of the structure can be easily kept at all times in an agreeable and sanitary condition.

In conjunction with this building the Loomis Laboratory will be employed in the manner already set forth.